

STIC Database Tracking Number:

To: Examiner Natalie Pass
Location: KNX 5A41
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2009/13/2009
Case Serial Number: 09/733215

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Search Notes

Dear Examiner Pass:

Please find attached the results of your search for the above-referenced case. The search was conducted using Dialog's Business Methods Template Databases. A DialogIndex (All Dialog databases) also included in the search.

I have listed *potential* references of interest in the first part of the search results. However, please be sure to scan through the entire report. There may be additional references that you might find useful.

If you have any questions about the search, or need a refocus, please do not hesitate to contact me.

Thank you for using the EIC, and we look forward to your next search!

Note: EIC-Searcher identified "potential references of interest" are selected based upon their apparent relevance to the terms/concepts provided in the examiner's search request.

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I. Potential References of Interest

A. Dialog

2/3,K/15 (Item 4 from file: 992)
DIALOG(R)File 992:NewsRoom 2007
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1393596046 17P32XTF
Reports and guidance documents; availability etc.: Risk Category I
institutions and insured foreign branches; assessment rate adjustment
guidelines
RegAlert
Monday, May 14, 2007 - Bad DATE - but has "relative risk ranking"
JOURNAL CODE: GDGC LANGUAGE: English RECORD TYPE: Fulltext
DOCUMENT TYPE: Trade Journal ISSN: N/A
WORD COUNT: 11,351

...Factors

The loss severity factors the FDIC will consider include both
quantitative and qualitative information. Quantitative information will
be used to develop estimates of deposit insurance claims and
the extent
of coverage of those claims by an institution's assets. These
quantitative estimates can in turn be converted into a relative
risk
ranking and compared with the risk rankings produced by the
initial
assessment rate. Factors that will be used to produce loss severity
estimates include: estimates for the amount of insured and non...

2/3,K/3 (Item 1 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2009 Gale/Cengage. All rts. reserv.

07781062 Supplier Number: 65076120 (USE FORMAT 7 FOR FULLTEXT)
W3Health and DxCG, Inc. Announce Strategic Relationship.
Business Wire, p2583
Sept 7, 2000
Language: English Record Type: Fulltext
Document Type: Newswire; Trade
Word Count: 536

... and formats to deliver a comprehensive view of utilization and cost
activity in an intuitive, user-friendly reporting environment.

DCG models use information recorded on medical claims to
develop comprehensive clinical profiles of each individual. The models use
these clinical profiles to predict medical expense and calculate a
relative risk score for each individual and for each
user-defined group, such as a provider group or risk pool, a product, a
specific geographic region, or an...

2/3,K/4 (Item 2 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
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07780365 Supplier Number: 65070199 (USE FORMAT 7 FOR FULLTEXT)
W3Health and DxCG, Inc. Announce Relationship.
Business Wire, p2411
Sept 7, 2000
Language: English Record Type: Fulltext
Document Type: Newswire; Trade
Word Count: 542

... and formats to deliver a comprehensive view of utilization and cost activity in an intuitive, user-friendly reporting environment.

DCG models use information recorded on medical claims to develop comprehensive clinical profiles of each individual. The models use these clinical profiles to predict medical expense and calculate a relative risk score for each individual and for each user-defined group, such as a provider group or risk pool, a product, a specific geographic region, or an...

2/3,K/5 (Item 3 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
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07287859 Supplier Number: 61818587 (USE FORMAT 7 FOR FULLTEXT)
McKessonHBOC Incorporates DCG Risk Adjustment Models; CRMS Fundamentals Now Embeds DxCG Risk Adjustment Software.
Business Wire, p1402
May 1, 2000
Language: English Record Type: Fulltext
Document Type: Newswire; Trade
Word Count: 545

... affect performance and point to clinical practices where targeted intervention will improve the efficiency of their healthcare delivery system.

DCG models use information recorded on medical claims to develop clinical condition profiles of each individual. DCG models use these clinical groupings to calculate a relative-risk score for each individual and for each user-defined group, such as a provider group or risk pool, a product, a specific geographic region, or an employer account. These scores may then be interpreted as highly accurate assessments of expected relative cost or relative health status. HCFA pays Medicare+Choice plans using a DCG-based...

19/3,K/2 (Item 2 from file: 149)
DIALOG(R)File 149:TGG Health&Wellness DB(SM)
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01966625 SUPPLIER NUMBER: 69434511 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Principal Inpatient Diagnostic Cost Group Model for Medicare Risk Adjustment.

Pope, Gregory C.; Ellis, Randall P.; Ash, Arlene S.; Liu, Chuan-Fen;
Ayanian, John Z.; Bates, David W.; Burstin, Helen; Iezzoni, Lisa I.;
Ingber, Melvin J.

Health Care Financing Review, 21, 3, 93

Spring,

2000

PUBLICATION FORMAT: Magazine/Journal; Refereed ISSN: 0195-8631

LANGUAGE: English RECORD TYPE: Fulltext; Abstract TARGET AUDIENCE: Trade

WORD COUNT: 12864 LINE COUNT: 01283

AUTHOR ABSTRACT: The Balanced Budget Act (BBA) of 1997 required HCFA to implement health-status-based risk adjustment for Medicare capitation payments for managed care plans by January 1, 2000. In support of this mandate, HCFA has been collecting inpatient encounter data from health plans since 1997. These data include diagnoses and other information that can be used to identify chronic medical problems that contribute to higher costs, so that health plans can be paid more when they care for sicker patients. In this article, the authors describe the risk-adjustment model HCFA is implementing in...

The goal of implementing health-status-based risk adjustment for Medicare capitation payments is to fairly compensate health plans for the expected costs associated with the disease burden of their enrollees. In support of this BBA mandate, HCFA has been collecting inpatient encounter data from health plans with discharges occurring since July 1997. These data include diagnoses and other information that can be used for risk adjustment. Risk adjustment will initially...

...describe and briefly review the role of risk adjustment in Medicare payments to managed care plans and how the PIPDCG model determines a beneficiary's relative risk factor. Second, we comment on the strengths and limitations of using inpatient encounter data to adjust capitation payments for health states. This section puts the PIPDCG model in broader context and presents some concerns that helped shape model development. Third, we describe model development: our...

...hospital stays is then considered. Finally, we examine the predictive accuracy and stability of the model and draw some conclusions.

MEDICARE RISK ADJUSTMENT

Medicare pays health maintenance organizations (HMOs) a monthly capitated amount for the medical care of each enrolled Medicare beneficiary. In the year 2000, 10 percent of payment for most beneficiaries is based on the PIPDCG risk-adjustment model...

...is the product of a county rate, determined by the beneficiary's residence, and a PIPDCG risk factor for that beneficiary. That is:

Payment = (Beneficiary relative risk factor) *
(county rate)

For example, if a beneficiary living in a county with a monthly rate of \$500 has a relative risk factor of 1.10, Medicare will pay a managed care plan $1.10 \times \$500 = \550 per month for that beneficiary's medical care. The relative risk factor reflects the expected relative costliness of providing medical services to beneficiaries in different health states. By paying more for sicker beneficiaries, managed care plans are encouraged to enroll and work to satisfy the needs of such people. In this article, we explain how the PIPDCG model calculates an individual's risk factor. The

risk-adjustment model is also used in calculating the county rate, as explained by Ingber (2000).

PIPDCG RELATIVE RISK FACTORS

The central feature of the PIPDCG model is calculating each beneficiary's relative risk factor. A beneficiary whose Medicare expenditures are predicted to equal the national average has a relative risk factor of 1.00. Risk factors greater than 1.00 indicate above average expected costliness; factors below 1.00 indicate lower-than-average expected costs. Tables 1 and 2 can be used to construct an individual's relative risk factor, starting with a base year (year 1) of demographic and medical information:

* Step 1. Compute a demographic factor (Table 1) by adding up to three individual factors: (1) age and sex; (2) originally disabled status (for...

...Select the PIPDCG factor (Table 2) by: (1) assigning each hospital stay of at least 2 days to a PIPDCG category based on the principal medical problem that led to the admission; then (2) identifying the relative risk factor associated with the highest numbered of these PIPDCG categories. Note that beneficiaries with no hospital stays of at least 2 days are assigned to PIPDCG...

...fall into the lowest numbered PIPDCG, that is, 4; both groups receive PIPDCG 4's factor of zero.

* Step 3: Add the demographic and PIPDCG factors to achieve a relative risk score. If Medicare is not this person's primary payer, multiply this score by 0.21 to represent the expected part of total health care costs for which HCFA is responsible.

Table 1 Demographic Factors Used by HCFA(1), by Sex and Age Group
Additive Factors

| | Age/Sex | Originally... |
|-------|---------|---------------|
| 1.128 | 0.152 | 0.168 |

(1) Refer to Table 2 for PIPDCG add-on factors. Working-aged multiplicative factor = 0,21.

NOTES: HCFA is Health Care Financing Administration. PIPDCG is Principal Inpatient Diagnostic Cost Group. Factors shown are for people with at least 1 year of eligibility. HCFA requires 12 months of data. Medicare beneficiaries under age 65 are eligible because of disability. The Medicare population mean = 1.

SOURCE: Health Care Financing Administration: Proposed Method of Incorporating Health Status Risk Adjusters into Medicare+Choice Payments. Report to Congress. Baltimore, MD, March 1, 1999.

Table 2 Add-On Factors for PIPDCGs
PIPDCG Factor

4...

...438

| | |
|----|-------|
| 18 | 2.656 |
| 20 | 3.392 |
| 23 | 3.823 |
| 26 | 4.375 |
| 29 | 5.189 |

NOTE: PIPDCG is Principal Inpatient Diagnostic Cost Group. SOURCE: Health Care Financing Administration: Proposed Method of

Incorporating Health Status Risk Adjusters into Medicare+Choice Payments. Report to Congress, Baltimore, MD. March 1, 1999.

As an example, a male 69 years of age, not...

...to Medicare by disability, and hospitalized last year for more serious illnesses (i.e., assigned to a higher numbered PIPDCG) all increase a beneficiary's relative risk factor. "Working-aged" status, however, reduces the risk factor by almost four-fifths, because then Medicare is only responsible for paying for part of the beneficiary's health care.

Next, we examine the advantages and limitations of using principal hospital diagnoses to measure beneficiaries' health status. Then, we describe how we develop the PIPDCG model.

RISK-ADJUSTING USING INPATIENT ENCOUNTER DATA

The BBA mandated improved risk-adjustment formulas within 3 years. HCFA's year 2000 health-based risk-adjustment model uses inpatient hospital admissions records because only hospital data were feasible to collect, calibrate, and process within this time frame. Collecting...

...inpatient-based risk adjustment over all-encounter risk adjustment are practical. Inpatient diagnoses are obtained more easily and cheaply, and the data-collection burden on health plans and providers is substantially lower than with ambulatory encounter data. Inpatient diagnoses--especially principal diagnoses--are likely to be more accurate and are easier to audit and verify, and their quality is more nearly uniform across different systems. Because inpatient admission is also a proxy for severity of illness, it seems reasonable to begin the transition to risk-adjusted payments by focusing on the most severely ill and expensive enrollees, who are most likely to be hospitalized.

An inpatient admission--especially one of at least 2 days' duration--represents a significant expenditure by a health plan. Hospitalizing a patient who does not really need it, for the purpose of recording a diagnosis that would increase payments next year, is less...

...be scheduled for extra ambulatory visits, during which additional, payment-increasing diagnoses could be recorded. Another benefit of inpatient-based risk adjustment is that capitated health plans, which receive no marginal payment for providing health care, may have an incentive to underprovide medical care, especially expensive services such as hospitalizations (Newhouse, 1996). An inpatient-based risk-adjustment system partly mitigates this disincentive of capitation.

The primary disadvantage of inpatient-based risk adjustment is the distorted incentive for health plans to choose among sites of care. Plans obtain higher risk-adjusted payments only by admitting their enrollees to the hospital. Thus, plans can be penalized when they successfully avoid an unnecessary admission by providing appropriate ambulatory care. The incentive to admit is contrary to the usual tenets of managed health care, because managed care plans have achieved most of their cost savings by reducing inpatient hospital use (Miller and Luft, 1997). Mitigating inappropriate incentives for...

...is the motive for some aspects of the PIPDCG model development, as we discuss later.

Using only the principal diagnosis from inpatient stays to infer health status, as the PIPDCG model does, has related advantages and disadvantages. The principal diagnosis is likely to be of good quality

because hospitals ...inpatient diagnoses for their payment incentives. The PIPDCG system may modify those incentives in some circumstances.) Also, because hospital admissions are often precipitated by acute health crises, the principal diagnosis may be more likely to represent an acute diagnosis than the underlying chronic illness. This consideration is somewhat at odds with the rationale for prospective risk adjustment, which seeks to predict year 2 costs from chronic illness. Finally, modeling choices (such as restricting attention to the single most costly principal diagnosis) made that were to mitigate the perverse incentives associated with hospital-based illness detection reduce predictive accuracy.

Even so, the PIPDCG model is far more powerful than the demographic factors in the AAPCC system used previously by HCFA to pay Medicare health plans. By providing greater fairness and accuracy in capitated payments, the current change in payment formulas is "a step in the right direction, albeit a...

...and representative source of information on costs for treatment of Medicare beneficiaries. The implicit assumption is that relative costs of patients with specified levels of disease burden are similar in the FFS and managed care sectors.

The PIPDCG model was developed on a 5-percent sample of Medicare's FFS enrollees...

...had to be enrolled in Medicare FFS throughout 1995 and 1996. Beneficiaries eligible at any time during the sample period for the end stage renal disease program and beneficiaries for whom Medicare was not the primary payer were excluded.

Expenditures were aggregated from hospital inpatient, hospital outpatient, professional (physician/supplier), home health, and durable medical equipment claims. Hospice expenditures were excluded because managed care plans are not responsible for hospice care. (All months of hospice eligibility and expenditures during those...

...Deductibles and copayments for Medicare-covered services that are the responsibility of beneficiaries were excluded from expenditures. Thus, expenditures are Medicare payments to providers. Indirect medical education expenditures were also excluded, because the BBA specifies that medical education payments are to be phased out of capitation payments to managed care plans and paid directly to teaching hospitals.(1)

To correctly estimate monthly...
to) 65) 4,901 0.95

| | | |
|--------|-------|------|
| Female | 5,098 | 0.98 |
| Male | 5,310 | 1.02 |

(1) Excludes working aged in 1995 and 1996.

SOURCE: Health Economics Research, Inc., analysis of 1995 and 1996 Medicare claims data, Waltham, MA, 1999.

Diagnostic Classification

The goal of our classification of diagnoses was to differentiate beneficiaries expected to have different levels of Medicare expenditures in year 2. Beneficiaries who are hospitalized for treatment of serious illnesses--for example, lung cancer--in year 1 are expected to have higher expenditures in year 2 than beneficiaries who are not hospitalized or who are hospitalized for less serious illnesses. To begin, we classified all of the more than 15,000 International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM) (Public Health Service

and Health Care Financing Administration, 1980) diagnostic codes into 172 Principal Inpatient Diagnostic Groups (PIPDxGs). The primary criteria used in forming PIPDxGs were clinical coherence and adequate...

...appendicitis (transitory, i.e., having definitive treatment), and fever (non-specific). By excluding such diagnoses, risk adjustment focuses on the burden of high-cost, chronic illness. Altogether, 75 of the 172 PIPDxGs were excluded from the payment model. (Note that the costs associated with these excluded diagnoses are not dropped. The...

...and in the DRG-based payment system, hospitals are required by HCFA to code chemotherapy as the principal diagnosis when it is provided for hospitalized cancer patients. Our solution was to recognize chemotherapy admissions when coded with a "V-code" for chemotherapy as the principal diagnosis and then to classify such admissions by the most serious type of cancer present among the secondary inpatient diagnoses. HIV/AIDS is another special case, associated with very high future expenditures. If admission is for an HIV-related...

...algorithm starts by computing the mean 1996 expenditures of beneficiaries with each 1995 diagnosis. Note that the costs for a female hospitalized for two distinct medical problems will contribute to two PIPDxG means. All diagnoses are then ranked in descending order of their 1996 expenditures. The highest ranked diagnoses (PIPDxGs) are...

...the diagnoses are re-ranked. The next-highest-cost PIPDxGs are included in the second-ranked PIPDCG, number 26. This PIPDCG includes the diagnoses metastatic cancer and brain/nervous system cancers, with mean 1996 expenditures of approximately \$26, ...of the sorting algorithm for clinical plausibility and incentives, and reassigned a small number of PIPDxGs. Refer to Pope et al., 1999 for details.) The relative risk factor of beneficiaries assigned to the base PIPDCG 4--which includes beneficiaries with no prior-year hospitalizations or excluded low-future-cost admissions only--is based solely on demographic factors. A beneficiary's relative risk factor increases from its demographic baseline if and only if he or she is assigned to one of the PIPDCGs numbered 5-29.

Table 4 Diagnoses Included in Each Principal Inpatient Diagnostic Cost Group (PIPDCG)

| Group | Diagnosis |
|-----------|--|
| PIPDxG 29 | HIV/AIDS(1) Blood, Lymphatic Cancers/Neoplasms(2) |
| PIPDxG 26 | Metastatic Cancer(2) Brain/Nervous System Cancer(2) |
| PIPDxG 23 | Liver/Pancreas/Esophagus Cancer(2) End Stage Liver Disorders Cardio-Respiratory Failure and Shock Decubitus and Chronic Skin Ulcers |
| PIPDxG 20 | Diabetes with Chronic Complications Coma and Encephalopathy Aspiration Pneumonia Renal Failure/Nephritis |

PIPDCG 18 ~~Cancer~~ of Placenta/Ovary/Uterine Adnexa(2)
 Blood/Immune Disorders
 Paralytic and Other Neurologic Disorders
 Polyneuropathy
 Gram-Negative/Staphylococcus Pneumonia

PIPDCG 16 Mouth/Pharynx/Larynx/Other Respiratory ~~Cancer~~(2)
 Lung ~~Cancer~~(2)
 Cirrhosis, Other Liver Disorders
 Congestive Heart Failure
 Atherosclerosis of Major Vessel
 Chronic Obstructive Pulmonary ~~Disease~~

PIPDCG 14 Septicemia (Blood Poisoning)/Shock
 Adrenal Gland, Metabolic Disorders
 Delirium/Hallucinations
 Paranoia and Other Psychoses
 Anxiety Disorders
 Personality Disorders
 Degenerative Neurologic Disorders
 Spinal Cord Injury

PIPDCG 12 Tuberculosis
 Stomach, Small Bowel, Other Digestive ~~Cancer~~(2)
 Rectal ~~Cancer~~(2)
~~Cancer~~ of Bladder, Kidney, Urinary Organs
 Benign Brain/Nervous System Neoplasm
 Diabetes with Acute Complications/Hypoglycemic Coma
 Inflammatory Bowel ~~Disease~~
 Rheumatoid Arthritis and Connective Tissue ~~Disease~~
 Bone/Joint Infections/Necrosis
 Dementia
 Drug/Alcohol Psychoses
 Major Depression/Manic and Depressive Disorders
 Epilepsy and Other Seizure Disorders
 Cerebral Hemorrhage
 Stroke
 Peripheral Vascular ~~Disease~~
 Pulmonary Fibrosis and Bronchiectasis
 Pleural Effusion/Pneumothorax/Empyema

PIPDCG 11 Gastrointestinal Obstruction/Perforation
 Gastrointestinal Hemorrhage
 Paroxysmal Ventricular Tachycardia
 Bacterial Pneumonia
 Cellulitis and Bullous Skin Disorders

PIPDCG 10 Colon ~~Cancer~~(2)
 Schizophrenic Disorders
 Post-Myocardial Infarction
 Unstable Angina
 Thromboembolic Vascular ~~Disease~~
 Kidney Infection
 Vertebral Fracture Without Spinal Cord Injury

PIPDCG 9 Other Cancers(2)
 Pancreatitis/Other Pancreatic Disorders
 Acute Myocardial Infarction
 Transient Cerebral Ischemia
 Fractures of Skull/Face
 Pelvic Fracture
 Hip Fracture
 Internal Injuries/Traumatic
 Amputations/Third-Degree Burns

PIPDCG 8 ~~Cancer~~ of Uterus/Cervix/Female Genital Organs(2)
 Peptic Ulcer
 Valvular and Rheumatic Heart Disease
 Hypertension, Complicated
 Coronary Atherosclerosis
 Angina Pectoris
 Atrial Arrhythmia
 Precerebral Arterial Occlusion
 Aortic and Other Arterial Aneurysm
 Asthma
 Brain Injury
 Artificial Opening of Gastrointestinal Tract Status

PIPDCG 7 Central Nervous System Infections
 Abdominal Hernia, Complicated
 Alcohol/Drug Dependence

PIPDCG 6 ~~Cancer~~ of Prostate/Testis/Male Genital Organs(2)

PIPDCG 5 Breast ~~Cancer~~(2)
 Ongoing Pregnancy with Complications
 Ongoing Pregnancy with No or Minor Complications

PIPDCG 4 No or Excluded Inpatient Admissions
 Ectopic Pregnancy
 Miscarriage/Terminated Pregnancy
 Completed...

...2) Includes principal diagnoses and secondary diagnoses when the principal diagnosis is chemotherapy.

NOTES: HIV is human immunodeficiency virus. AIDS is acquired immunodeficiency syndrome.

SOURCE: ~~Health~~ Economics Research, Inc., Waltham, MA, 1999.

Table 5 shows the number of admissions used in different stages of the PIPDCG modeling. Final assignment to a...

...same principal inpatient diagnosis. 3 Zero- or 1-day stays.

NOTES: PIPDCG is Principal Inpatient Diagnostic Cost Group. PIPDxG is Principal Inpatient Diagnostic Group.

SOURCE: ~~Health~~ Economics Research, Inc., ~~analysis~~ of 1995 and 1996 Medicare ~~claims~~ data, Waltham, MA, 1999.

Table 6 shows frequencies and mean expenditures of the PIPDCGs in our 1995/1996 FFS data. In the end, 12 percent of...Contains all beneficiaries whose hospital admission (diagnosis) results in a higher capitation payment the following year.

NOTE: PIPDCG is Principal Inpatient Diagnostic Cost Group.

SOURCE: Health Economics Research, Inc., analysis of 1995 and 1996 Medicare claims data, Waltham, MA, 1999.

Demographic Factors

Although the main focus of the PIPDCG model is on using diagnostic information, demographic variables remain important predictors of...

...amount of variation of spending that is unrelated to observed hospital diagnoses, and hence was included in the model. As explained previously, a beneficiary's relative risk score is determined by adding a demographic factor and a hospital diagnosis factor. The incremental effect of diagnostic category and demographic factors on future expenditures was...

...following demographic factors: age, sex, Medicaid enrollment, residence in an institution, and working-aged status (where Medicare is the secondary payer to a private group health insurance plan). We examined all these factors, plus one additional factor, "originally disabled" status.

Age and Sex

The AAPCC used 10 age categories, each split...

...Medicare expenditures for Medicare-Medicaid dually eligible beneficiaries are 29 percent higher than predicted by age, sex, and principal hospital diagnosis. Setting accurate relative Medicare risk scores for Medicare-Medicaid enrollees requires an explicit adjustment for the higher expenditures of dually eligible persons. Such an adjustment prices this vulnerable subgroup of Medicare beneficiaries accurately, encouraging health plans to enroll persons who are also eligible for Medicaid in Medicare. Medicaid status is routinely available in HCFA administrative files, and it is relatively immune to manipulation by health plans. (Plans could attempt to enroll in Medicaid as many of their Medicare enrollees as possible to obtain higher Medicare capitation payments. This is not...

...proportions of the poor enrolled in Medicaid programs. Thus, Medicaid status is an imperfect indicator of poverty status, which has historically been linked to higher health care costs. The non-Medicaid poor may also incur higher Medicare expenditures, but this group cannot be identified using HCFA's administrative files. Also, it is not entirely clear why Medicaid status predicts higher future health care expenditures. It could be a proxy for aspects of health or functional status that are not captured by other available measures. (One subgroup of Medicaid enrollees, the medically needy, are eligible for Medicaid by virtue of high health care expenses. For this subgroup, Medicaid enrollment is clearly a proxy for poor health.) Or it could be related to socioeconomic characteristics, such as reduced literacy or inadequate social support, of poorer beneficiaries that result in higher health care expenses.

We believe the advantages of including Medicaid status outweigh the disadvantages, so we included it in the PIPDCG model. We conducted several analyses...prospective. A prospective adjustment is more consistent with the prospective risk-adjustment framework of the PIPDCG model, where adjustment is made for factors observable to health plans in year 1 when they enroll beneficiaries. A prospective approach also has administrative advantages, allowing Medicaid status to be observed and payment rates determined...

...issue of differentiation by age and sex, we found reasonably large differences in the Medicaid factor by age and sex even after addressing differences in illness burden with the PIPDCG factor. To calibrate the Medicaid adjustment, we interacted Medicaid with each of the 24 age and sex cells. Actuarial smoothing was...

...of adjusting for Medicaid. Medicare managed care should be paid a fair price so that members of this vulnerable group will be as attractive to health plans as other Medicare enrollees. Originally disabled status is routinely available from HCFA administrative files and relatively immune to manipulation by health plans.

An additional advantage of an adjustment for originally disabled status is that it establishes an appropriate age profile of relative risk factors for the Medicare disabled population. If an adjustment is not made, the relative risk factor for a disabled Medicare beneficiary falls when that beneficiary turns 65 (because the average disabled beneficiary of age 64 has higher health care needs than the average new enrollee of age 65 to Medicare). With adjustment, relative risk factors rise appropriately as disabled beneficiaries age. This effect can be seen in Table 1, where, for example, the demographic factor for a disabled male age...

...a measure of Medicare's financial liability rather than the employment status of the beneficiary. When a Medicare beneficiary is enrolled in a private group health insurance plan, by law the private plan is the primary payer for the beneficiary's health care. Medicare will only pay for Medicare-covered services that are not covered by the private plan or for cost-sharing imposed by the private plan that exceeds Medicare cost-sharing. Beneficiaries with private group health insurance are said to be in working-aged status, because typically they obtain private insurance through employment or the employment of a spouse. (Working-aged because employment may be a marker for better health status. (As previously noted, not all working-aged beneficiaries are employed, because some beneficiaries may obtain private insurance coverage through their spouses.)

We developed a multiplicative adjustment for working-aged status. The multiplier is applied to the relative risk factor derived for a beneficiary as if he or she were not in working-aged status. The multiplier scales the risk factor downward for the lower...

...PIPDCG factor in months that Medicare is the primary payer, and 21 percent of that amount in months where they have working-aged status.

The relative risk factor for a male beneficiary age 68 who is not enrolled in Medicaid, was not previously entitled by disability, and was not hospitalized in the base year is 0.541. If this male is employed with private group health insurance, his relative risk factor is reduced to 21 percent of 0.541, or 0.114. That is, this beneficiary is expected to cost Medicare only 11 percent as much...

...primarily a concurrent (year 2), rather than prospective (year 1) adjustment. Institutional status is not routinely available in Medicare administrative files, but is reported by health plans for managed care enrollees to HCFA.

Because institutional status is not available in HCFA's claims or enrollment files, we used the Medicare Current...

| | | | |
|-----------------------------------|--------|-------|--------|
| ...32 | 46,159 | | |
| SNF/Nursing Home | 261 | 6.60 | 33,364 |
| Mixed | 27 | 8.60 | 34,315 |
| ICF/MR | 195 | 11.45 | 3,040 |
| Mental Health | 82 | 10.85 | 6,312 |
| Hospital | 21 | 9.88 | 3,463 |
| Rehabilitation | 8 | 10.83 | 8,313 |
| Medicaid | 5,471 | -- | 7,131 |
| Medicaid and Institutionalized... | | | |
| ...SNF Only | 7,209 | 0.16 | |
| SNF/Nursing Home | 10,278 | 0.31 | |
| Mixed | 8,833 | 0.26 | |
| ICF/MR | 4,407 | 1.45 | |
| Mental Health | 6,268 | 0.99 | |
| Hospital | 7,356 | 2.12 | |
| Rehabilitation | 8,613 | 1.04 | |
| Medicaid | 7,612 | 1.07 | |
| Medicaid and Institutionalized | 9,164 | 1... | |

...NOTES: PIPDCG is Principal Inpatient Diagnostic Cost Group model. SNF is skilled nursing facility. ICF/MR is intermediate care facility for the mentally retarded.

SOURCE: Health Economics Research, Inc., analysis of 1991-1994 Medicare Current Beneficiary Survey data, Waltham, MA, 1999.

Expenditures are not predicted accurately for important subgroups of the...

...of whom are long-term residents (average months institutionalized per nursing home resident per year is 10.3). These long-term residents may have significant health care costs, but many of these costs are the responsibility of Medicaid ...An adjustment for the long-term nursing home population would be negative because Medicare expenditures are overpredicted for this group. It seems undesirable to discourage health plans from enrolling this vulnerable group through a negative adjustment. Also, as a practical matter, HCFA would rely on plans to self-report the data used to reduce payments--a problematic scenario. Although use of post-acute care SNF services in the payment year is an indicator of illness severity, it is inconsistent with a prospective, diagnosis-based capitation model to increase payments for current-year service use. Because the SNF stay is precipitated...

...adjustments for institutionalized subpopulations. No adjustment for institutional status is included in the PIPDCG risk-adjustment model.

Excluding Short Hospital Stays

Because of concerns that health plans may overadmit patients in order to increase payments, we explored the sensitivity of the model to including and excluding diagnoses from short hospital stays. The concern is that payments based only on hospitalizations may give health plans an incentive to hospitalize enrollees to increase future payments. In its utilization review of hospital admissions,

the health plan weighs the expected marginal revenue and marginal costs of the hospitalization along with the benefits of treatment to the patient. Even if plans are...

...discourages this undesirable strategy.

Excluding short-stay diagnoses has advantages and disadvantages. To the extent that length of stay is a proxy for severity of illness, short-stay patients are less severely ill and less expensive in the future than longer stay patients. Excluding short-stay diagnoses does not degrade very...

...that are often appropriately performed in the outpatient setting. Attaching a substantially greater future payment to inpatient, as opposed to outpatient, testing and procedures gives health plans a strong incentive to perform these activities in the hospital. Excluding short-stay diagnoses limits this incentive. Finally, excluding diagnoses arising from short stays eliminates penalties to health plans that avoid unnecessary short-stay admissions; models with such exclusions may thus provide a more level playing field among plans.

Excluding short-stay diagnoses...

...risk-adjustment model's predictive accuracy. Although excluding short-stay diagnoses lessens incentives to admit, paying more only when diagnoses come from longer stays gives health plans an incentive to increase length of stay. Manipulating length of stay is probably easier than increasing the admission rate. Excluding short-stay diagnoses penalizes...

...stays (i.e., discharge date 1 day later than admission date).(3) In assigning beneficiaries to PIPDCG 5 or above (thus raising a beneficiary's relative risk factor), after removing stays with excluded diagnoses and multiple admissions per beneficiary, only 2.1 percent of total 1995 admissions were excluded because they were short...of beneficiary Medicare eligibility in 1996. After actuarial smoothing of a few demographic coefficients estimated from small sample sizes in the extreme age ranges, the relative risk factors shown in Table 1 were derived by dividing the regression coefficients by mean expenditures. The population mean of \$5,100 was used rather than the...

...enrollees because a full year of data was not available for them.) For example, the estimated coefficient of PIPDCG 6, which contains the diagnosis prostate cancer, was \$2,333. This coefficient means that, holding constant a beneficiary's age, sex, Medicaid status, and originally disabled status, a 1995 hospitalization for prostate cancer was associated with an average \$2,333 higher Medicare expenditures in 1996 (assuming the hospitalization for prostate cancer was the beneficiary's only 1995 hospitalization or that any other hospitalizations were assigned to lower ranked PIPDCGs). Dividing this coefficient by the mean (2,333/5,100) yields the relative risk factor of 0.458 (or about 46 percent of the average expenditure) for PIPDCG 6 shown in Table 1. This hospitalization risk factor is added to the beneficiary's demographic risk factor to determine his or her total relative risk factor.

EVALUATION OF MODEL

After developing the PIPDCG payment model, we evaluated its predictive accuracy and stability. We used two samples to judge predictive

accuracy and...

...increasing next year's payments because more services were used this year rewards plans because they spend more money--a feature that is inconsistent with health-risk-based payments. A Medicare risk-adjustment model only needs to predict expenditures approximately as well as health plans can, so that plans find that they receive payments that equal their expected costs for enrollees.

Still, the (R.sup. 2) values of prospective risk-adjustment models are quite low in absolute terms (i.e., relative to 100 percent, or perfect prediction) and modest relative to the supposed theoretically attainable maximums. The low (R.sup.2) values remind us that there is considerable variability in medical expenses due to the random onset of acute illness that must remain the province of insurance risk-pooling. The PIPDCG and other prospective risk-adjustment models cannot be expected to, and do not, predict...

...which probably will have to await the availability of more clinically detailed and precise data on beneficiaries, such as their functional status or severity of illness within specific diagnostic groups. In the meantime, health plans (or beneficiaries) possessing more accurate information can engage in profitable biased selection against capitation payments incorporating even health-based risk adjustment. Imperfect clinical risk adjustment, nevertheless, is better than no clinical risk adjustment, as even imperfect risk adjustment will limit selection opportunities and...

...a measure of the proportion of individual variability that is explained by a risk-adjustment model. It can be an overly pessimistic measure, however, because health plans are generally only able to increase their enrollment within categories of similar individuals (for example, by advertising the excellence of their care to cardiac...

...principal inpatient diagnoses grouped into the 16 PIPDCG categories. We compare the PIPDCG model with a demographic model to show the effect of adding a health-status measure (prior-year hospital diagnoses) to demographic risk adjusters. Ratios are shown for groups defined by prior-year Medicare expenditure percentiles, number of prior-year hospital admissions, chronic conditions diagnosed during inpatient or ambulatory encounters, beneficiary self-rated general health status, and beneficiary self-reported difficulty in activities of daily living (ADLs), a measure of functional status. (ADLs include eating, bathing, dressing, using the toilet...

...3,4)

| | | |
|----------------------------------|------|------|
| Any Chronic Condition Below | 0.84 | 0.89 |
| Depression | 0.59 | 0.77 |
| Alcohol/Drug Dependence | 0.44 | 0.78 |
| Hypertensive Heart/Renal Disease | 0.65 | 0.81 |
| Benign/Unspecified Hypertension | 0.83 | 0.90 |
| Diabetes with Complications | 0.47 | 0.63 |
| Diabetes Without Complications | 0.63 | 0.73 |
| Heart Failure/Cardiomyopathy | 0.51 | 0.74 |
| Acute Myocardial Infarction | 0.47 | 0.78 |

| | | |
|---------------------------------------|------|------|
| Other Heart Disease | 0.66 | 0.80 |
| Chronic Obstructive Pulmonary Disease | 0.63 | 0.79 |
| Colorectal Cancer | 0.59 | 0.78 |
| Breast Cancer | 0.75 | 0.81 |
| Lung/Pancreatic Cancer | 0.35 | 0.61 |
| Other Stroke | 0.53 | 0.74 |
| Intracerebral Hemorrhage | 0.42 | 0.73 |
| Hip Fracture | 0.59 | 0.83 |
| Arthritis | 0.79 | 0.84 |
| Self-Rated General Health Status(5) | | |
| Poor | 0.54 | 0.67 |
| Fair | 0.81 | 0.86 |
| Good | 1.03 | 1.01 |
| Very Good | 1.36 | 1.27 |
| Excellent | 1... | |

...from 5-percent 1995-1996 Medicare sample.

(4) Defined as beneficiaries with a 1995 diagnosis on a Medicare hospital inpatient, outpatient, physician, or other professional health claim.

(5) Calculated from 1991-1994 Medicare Current Beneficiary Survey sample.

(6) Measured as difficulty with activities of daily living (ADLs).

(7) Activities of daily living include eating, bathing, dressing, using the toilet, walking, and getting in and out of chairs.

NOTE: PIPDCG is Principal Inpatient Diagnostic Cost Group.

SOURCE: Health Economics Research, Inc., analysis of 1995-1996 Medicare data, and 1991-1994 Medicare Current Beneficiary Survey, Waltham, MA, 1999.

The PIPDCG model predicts expenditures more...most predictive of future expenses.) The PIPDCG model improves substantially upon the demographic model for all prior-year hospitalization categories. Although underpredicting for all chronic disease groups, the PIPDCG model does better for each diagnosis than the demographic model. The PIPDCG model does best relative to demographics when the diagnosis is most likely to be the reason for a hospital admission, such as lung or pancreatic cancer and intracerebral hemorrhage. Its predictive accuracy exceeds that of the demographic model the least for diagnoses with more outpatient-oriented treatment, such as arthritis and hypertension.

The PIPDCG model improves demographic predictions for all self-rated general health-status and functional-status groups. The proportional improvement is the greatest for beneficiaries reporting the worst (poor) health or the most functional limitations (difficulty in performing five or six ADLs). Nevertheless, as with chronic conditions, the model still underpredicts for beneficiaries reporting the worst health or the most functional limitations.

Overall, the impression from the predictive ratios is that the PIPDCG model improves predictive accuracy significantly compared with a demographic...

...sometimes sacrificed to improve the behavioral incentives of the model. For example, accounting for multiple prior-year hospitalizations or higher prior-year expenditures would reward health plans that rehospitalized

enrollees or were inefficient in their expenditures. Moreover, some types of information that can be used to improve predictive accuracy, such as base-year expenditures, ambulatory diagnoses, and survey health -status measures, are not currently available for most Medicare managed care enrollees. (HCFA intends to collect encounter data from all care settings, which will provide ambulatory diagnoses and imputed expenditures, as soon as practical. And HCFA does collect survey health-status measures for a sample of enrollees in each Medicare managed care plan through its Health Outcomes Survey.)

Stability

In addition to predictive accuracy, a desirable property of a risk-adjustment model is stability. The model's predictions should be stable...

...from year to year for a population that is not changing over time. A county's Medicare enrollees or the enrollees of a long-established health plan might constitute a stable population. The amount of instability or random variation in a population's average relative risk score depends upon the size of the population. The incidence of acute illness is largely random, and in a small population, the number and type of hospitalizations, and hence PIPDCG assignments, will vary from year to year.

We analyzed the amount of random variation in mean risk scores as a function of populations of different sizes, such as the enrollees of small and large health plans. Using the normal distribution approximation, the 95-percent confidence interval for the mean relative risk score is given by

$RRS (+ \text{ or } -) 1.96 \cdot CV / (\text{square root of } n),$

where RRS = the calculated mean relative risk score for a population, CV = the coefficient of variation of risk-adjustment model predictions, and n = the number of beneficiaries in the population. Table 9 tabulates 95-percent confidence-interval factors for demographic and PIPDCG models for populations of different sizes. For example, if the mean demographic risk score for a health plan with 1,000 enrollees is 1.05, the 95-percent confidence interval is 1.050 (+ or -) 2.2 percent (that is, from 1.028 to 1.072).

Table 9 95-Percent Confidence Intervals for Relative Risk Scores, by Model and Population Size

| Item | Demographic Model(1) | PIPDCG Model |
|------------------------------|----------------------|--------------|
| Coefficient of Variation*100 | 34.717 | 68.295 |
| Population Size(2) | Percent(3) | |
| 50... | | |

...or -) 0.19

1,000,000 (+ or -) 0.07 (+ or -) 0.13

(1) Includes age/sex, Medicaid, and originally disabled.

(2) For example, number of health plan enrollees, or county residents.

(3) Percentage points plus or minus for a population's mean score.

NOTES: Calculated as $1.96 \cdot (CV / \sqrt{\text{Population Size}})$. For example, if the mean demographic risk score for a health plan with

1,000 enrollees is 1.050, the 95-percent confidence interval is (1.028, 1.072). PIPDCG is Principal Inpatient Diagnostic Cost Group.

SOURCE: Health Economics Research, Inc., analysis of 1995-1996 Medicare data, Waltham, MA, 1999.

The formula given in Table 9 shows that the 95-percent confidence interval...model are subject to more random variation than demographic predictions. Nevertheless, in absolute terms, the degree of random variation is small for expected real-world health plan sizes. For a 5,000-person plan, the random variation in PIPDCG predictions is (+ or -) 1.9 percent, for a 10,000-person plan...

...000-person plan, it is only (+ or -) 0.6 percent.

Nevertheless, for very small populations, say of under 1,000, random variation in mean PIPDCG risk scores is significant. Might it be better for very small populations to use a demographic risk adjuster than the PIPDCG adjuster? A common measure of predictive...

...model is captured by the ((bias).sup.2) term. In our application, systematic misprediction would occur because a demographic model would not accurately capture the health status of a population, no matter how large the sample size. In large populations, the variance of the mean risk scores approaches zero, and the MSE equals the square of the bias. In large samples, clearly, an unbiased health-status-based risk-adjustment model predicts more accurately than a (biased) demographic model. But in very small samples, a demographic model, despite its bias, might...

...its predictions.

We simulated the MSEs of the PIPDCG model and an age/sex demographic model for various sample sizes, degrees of bias, and mean risk scores. The simulations showed that, unless the bias in the demographic (age/sex) model is very small (e.g., 1 percent), the PIPDCG prediction is expected to be more accurate for any realistic plan size. For example, if the bias in the age/sex model is 5 percent, the mean PIPDCG risk scores have a smaller MSE than the mean age/sex risk score for populations (plans) with 250 or more members (enrollees).

To confirm our stability results empirically, we used the MCBS to simulate and compare national and regional mean risk scores for each of the 3 years available in our sample: 1992, 1993, and 1994. The MCBS provides a reasonable representation of a plan because it...

...continuously representing the national Medicare population. The national MCBS sample size is about 12,000 per year, simulating enrollees in a small-to-moderate size health plan, while the regional sample sizes range from about 1,500 to 4,000, simulating enrollees in very small to small health plans. The results were consistent with predictions from the simulations. The PIPDCG model was slightly more unstable than demographic models, especially in the very small...

...model is a conservative risk-adjustment model. In simulations with Medicare FFS data, it adjusts payments for only 12 percent of enrollees based on their health status. To measure health status, it utilizes only principal inpatient diagnoses, which are the most widely available and highest quality diagnoses. The PIPDCG model focuses on beneficiaries hospitalized for...

...and comprehensive risk-adjustment models can be implemented.

The PIPDCG model's exclusive use of inpatient diagnoses raises some

issues related to incentives and fairness. Health plans have an incentive to admit enrollees to have diagnoses counted, and plans that avoid unnecessary admissions may be penalized. More fully understanding these issues...

...admissions. Providers could benefit from the lump sum per admission payment. Yet the expected increases in admission rates never materialized (Medicare Payment Advisory Commission, 1998). Health plan admission behavior will ...by HCFA, just as hospital admissions under the PPS were carefully monitored by the HCFA-funded peer review organizations.

Virtually all policy analysts agree that health-based risk adjustment promotes the successful long-term operation of competitive capitated health insurance markets. Health-based risk adjustment has been long advocated and researched but is only starting to be implemented. Medicare's implementation of the PIPDCG model will provide valuable experience with real-world risk adjustment.

ACKNOWLEDGMENTS

The authors thank anonymous reviewers for helpful comments on this article.

(1) Medical education payments are comprised of indirect and direct payments. It was not feasible to exclude direct payments. Indirect payments, which we excluded, represent about two-thirds of total medical education payments.

(2) The lack of larger differences in predicted expenditures by Medicaid eligibility category may be attributable to the inaccurate assignment of beneficiaries to...

...the PIPDCG model, which includes only hospital inpatient diagnoses.

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Weiner, J.P., Dobson, A., Maxwell, S., et al.: Risk-Adjusted Medicare Capitation Rates Using Ambulatory and Inpatient Diagnoses. Health Care Financing Review 17:77-100, 1996.

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DESCRIPTORS: Health care industry...

...Capitated payment systems (Medical care...

B. Additional Resources Searched

All Dialog Databases Searched – DialIndex – including Health & Insurance Files.

Reference of interest are listed in Section A – Dialog Results.

II. Inventor Search Results from Dialog

No results obtained from the inventor search results.

III. Text Search Results from Dialog

A. Full-Text Databases

? show files;ds
File 5:Biosis Previews(R) 1926-2009/Aug W2
(c) 2009 The Thomson Corporation
File 15:ABI/Inform(R) 1971-2009/Aug 12
(c) 2009 ProQuest Info&Learning
File 16:Gale Group PROMT(R) 1990-2009/Jul 21
(c) 2009 Gale/Cengage
File 20:Dialog Global Reporter 1997-2009/Aug 12
(c) 2009 Dialog
File 34:SciSearch(R) Cited Ref Sci 1990-2009/Aug W1
(c) 2009 The Thomson Corp
File 144:Pascal 1973-2009/Aug W2
(c) 2009 INIST/CNRS
File 148:Gale Group Trade & Industry DB 1976-2009/Jul 28
(c) 2009 Gale/Cengage
File 172:EMBASE Alert 2009/Aug 12
(c) 2009 Elsevier B.V.
File 180:Federal Register 1985-2009/Aug 12
(c) 2009 format only DIALOG
File 440:Current Contents Search(R) 1990-2009/Aug 13
(c) 2009 The Thomson Corp
File 484:Periodical Abs Plustext 1986-2009/Aug W2
(c) 2009 ProQuest
File 485:Accounting & Tax DB 1971-2009/Aug W1
(c) 2009 ProQuest Info&Learning
File 610:Business Wire 1999-2009/Aug 13
(c) 2009 Business Wire.
File 621:Gale Group New Prod.Annou.(R) 1985-2009/Jul 06
(c) 2009 Gale/Cengage
File 649:Gale Group Newswire ASAP(TM) 2009/Jul 08
(c) 2009 Gale/Cengage
File 992:NewsRoom 2007
(c) 2009 Dialog
File 996:Newsroom 2000-2003
(c) 2008 Dialog

| Set | Items | Description |
|-----|-------|---|
| S1 | 46 | (RELATIVE()RISK OR RISK()RATIO OR RR) (5N) (SCORE? OR RANK? - OR SCORING? OR HIGHEST OR PYRAMID) (60N) (INSURANCE OR HEALTH OR MEDICAL OR MEDICAL) ()CLAIMS |
| S2 | 18 | RD (unique items) |

? t2/3,k/all

2/3,K/1 (Item 1 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
(c) 2009 The Thomson Corporation. All rts. reserv.

0021090698 BIOSIS NO.: 200900432135
Topical Treatments with Pimecrolimus, Tacrolimus and Medium- to
High-Potency Corticosteroids, and Risk of Lymphoma
AUTHOR: Schneeweiss Sebastian; Doherty Mike; Zhu Shao; Funch Donnie;

Schlienger Raymond G; Fernandez-Vidaurre Carlos; Seeger John D (Reprint)
AUTHOR ADDRESS: i3 Drug Safety, 950 Winter St, Waltham, MA 02451 USA**USA
AUTHOR E-MAIL ADDRESS: john.seeger@i3drugsafety.com
JOURNAL: Dermatology (Basel) 219 (1): p7-21 2009 2009
ITEM IDENTIFIER: doi:10.1159/000209289
ISSN: 1018-8665
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

...ABSTRACT: corticosteroids, along with cohorts of persons with untreated dermatitis and randomly sampled enrollees were identified from January 2002 to June 2006. Lymphomas were identified using insurance claims and adjudicated by medical records review. We adjusted for confounders by propensity score matching. Results: Among 92,585 pimecrolimus initiators contributing 121,289 person-years of follow-up, we identified 26 lymphomas yielding an incidence of 21/100,000 person-years. This incidence of lymphoma was similar to that among tacrolimus users (rate ratio, RR = 1.16; 95% confidence interval, CI = 0.74-1.82) as well as corticosteroid users (RR = 1.15; 95% CI = 0.49-2.72). All...

2/3,K/2 (Item 1 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
(c) 2009 ProQuest Info&Learning. All rts. reserv.

02791514 697019921
Comparing Accuracy of Risk-Adjustment Methodologies Used in Economic Profiling of Physicians
Thomas, J William; Grazier, Kyle L; Ward, Kathleen
Inquiry - Excellus Health Plan v41n2 PP: 218-231 Summer 2004
JRNL CODE: INQ
WORD COUNT: 8015

...TEXT: on externally defined cost objectives or standards. Estimation of member expected costs is generally done with risk-adjustment models. The models are used to assign relative risk scores or risk categories to members on the basis of demographic, diagnosis, and other information extracted from the member's insurance claims records.

A physician is considered efficient if s/he is able to manage a panel of members in such a way that the costs of...

2/3,K/6 (Item 1 from file: 20)
DIALOG(R)File 20:Dialog Global Reporter
(c) 2009 Dialog. All rts. reserv.

06270676 (USE FORMAT 7 OR 9 FOR FULLTEXT)
The MEDSTAT Group Signs License Agreement with DxCG, Inc.; Healthcare Information Leader to Add New Risk Adjustment Capability
BUSINESS WIRE
July 19, 1999

JOURNAL CODE: WBWE LANGUAGE: English RECORD TYPE: FULLTEXT
WORD COUNT: 534

(USE FORMAT 7 OR 9 FOR FULLTEXT)

... of healthcare information products and services."

About Diagnostic Cost Group (DCG) Models

The DCG models use embedded clinical grouping logic to extract information recorded on ~~medical claims~~. The DCG models apply the resulting clinical groupings to develop clinical profiles and to calculate ~~relative-risk scores~~ for individuals and for user-defined groups, such as provider groups, products or employer accounts. This information may then be interpreted as highly accurate assessments...

2/3,K/7 (Item 2 from file: 20)
DIALOG(R)File 20:Dialog Global Reporter
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06183718 (USE FORMAT 7 OR 9 FOR FULLTEXT)
MEDSTAT Databases Selected For Use In Healthcare Risk Adjustment Software
BUSINESS WIRE
July 13, 1999
JOURNAL CODE: WBWE LANGUAGE: English RECORD TYPE: FULLTEXT
WORD COUNT: 385

(USE FORMAT 7 OR 9 FOR FULLTEXT)

... was founded in 1996 to ensure that the DCG models are widely available to health plans, providers, and researchers. DCG models use information recorded on ~~medical claims~~ to develop clinical groupings and to calculate a ~~relative-risk score~~ for individuals and for user-defined groups (e.g., provider, product, employer, etc.).

The MarketScan Research Databases comprise the inpatient, outpatient, and outpatient prescription drug...

2/3,K/8 (Item 3 from file: 20)
DIALOG(R)File 20:Dialog Global Reporter
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04930108 (USE FORMAT 7 OR 9 FOR FULLTEXT)
DxCG, Inc. Signs License Agreement with VIPS Healthcare Information Solutions
BUSINESS WIRE
April 12, 1999
JOURNAL CODE: WBWE LANGUAGE: English RECORD TYPE: FULLTEXT
WORD COUNT: 904

(USE FORMAT 7 OR 9 FOR FULLTEXT)

... These same predictive capabilities may help Queens better target certain acute diagnoses for specific interventions in preventive health programs."

DCG models use information recorded on ~~medical claims~~ to develop clinical profiles of each individual. The DCG models use these clinical groupings to calculate a ~~relative-risk score~~ for each individual and for each user-defined group, such as a provider group, a product, or an employer account. These ~~scores~~ may then be interpreted as highly accurate assessments of expected relative cost or relative health status.

Researchers at Boston and Brandeis Universities originally created DCGs...

2/3,K/9 (Item 1 from file: 180)
DIALOG(R)File 180:Federal Register
(c) 2009 format only DIALOG. All rts. reserv.

DIALOG Accession Number: 0003515533 Supplier Number: 72092037
Assessment Rate Adjustment Guidelines for Large Institutions and Insured
Foreign Branches in Risk Category I
Volume: 72 Issue: 092 Page: 27122
CITATION NUMBER: 72 FR 27122
Date: Monday, May 14, 2007

TEXT:
...Factors

The loss severity factors the FDIC will consider include both quantitative and qualitative information. Quantitative information will be used to develop estimates of deposit ~~insurance claims~~ and the extent of coverage of those claims by an institution's assets. These quantitative estimates can in turn be converted into a ~~relative risk ranking~~ and compared with the risk rankings produced by the initial assessment rate. Factors that will be used to produce loss severity estimates include: estimates for the amount of insured and non...

2/3,K/10 (Item 2 from file: 180)
DIALOG(R)File 180:Federal Register
(c) 2009 format only DIALOG. All rts. reserv.

DIALOG Accession Number: 0003507990 Supplier Number: 72034036
Proposed Assessment Rate Adjustment Guidelines for Large Institutions and
Insured Foreign Branches in Risk Category I
Volume: 72 Issue: 034 Page: 7878
CITATION NUMBER: 72 FR 7878
Date: Wednesday, February 21, 2007

TEXT:
...failure.

The loss severity factors the FDIC will consider include both quantitative and qualitative information. Quantitative information will be used to develop estimates of deposit ~~insurance claims~~ and the extent of coverage of those claims by an institution's assets. These quantitative estimates can in turn be converted into a ~~relative risk ranking~~ and compared with the risk rankings produced by the initial assessment rate. Factors that will be used to produce loss

severity estimates include: Estimates for the amount of insured and non...

2/3,K/11 (Item 1 from file: 485)
DIALOG(R)File 485:Accounting & Tax DB
(c) 2009 ProQuest Info&Learning. All rts. reserv.

01075578 SUPPLIER NUMBER: 1173413151
A Case Study in Disease Management Return on Investment
Oliver, Ginny; Gilles, Paul; Bilodeau, Marc
WorldatWork Journal v15 n3 PP: 54-63 Third Quarter 2006
ISSN: 1529-9457 JRNL CODE: ACAJ

Accounting & Tax DB_1971-2009/Aug W1

...ABSTRACT: to normal levels, would be \$10 million. Unfortunately, it soon was discovered that the DM vendors' computation of ROI lacked consistency and creditability. Using the ~~medical claims~~ aggregator in conjunction with the illness-burden tool, four separate analyses to measure DM ROI were developed: 1. total medical cost for members with chronic conditions, 2. cost per claimant by chronic condition, 3. chronic condition incidence rate, and 4. membership illness burden or ~~relative risk score~~.

2/3,K/12 (Item 1 from file: 992)
DIALOG(R)File 992:NewsRoom 2007
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1456100223 17T031VY
REP. MELANCON ANNOUNCES OVER \$46 MILLION IN FEDERAL GRANTS FOR JEFFERSON, ASCENSION, ST. BERNARD PARISHES
US Federal News
Wednesday, September 12, 2007
JOURNAL CODE: IJGI LANGUAGE: English RECORD TYPE: Fulltext
DOCUMENT TYPE: Press Release
WORD COUNT: 1,165

...elevate 30 homes that have repeatedly flooded following storms. The proposed project will elevate 30 homes that have that have each received multiple NFIP flood ~~insurance claims~~ and are on the severe repetitive loss list. The structures will be raised to the Base Flood Elevation. The homes were chosen based on their ~~rankings~~ for flood risk and storm surge risk, in the context of ~~relative risk~~ as summarized by the State of Louisiana Hazard Mitigation Plan. Elevating these 30 structures will significantly reduce future potential for those buildings to sustain flood...

2/3,K/13 (Item 2 from file: 992)
DIALOG(R)File 992:NewsRoom 2007
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1455095929 17SY2XPS
JEFFERSON PARISH RECEIVES OVER \$4 MILLION FOR ELEVATION PROJECTS
US Federal News

Monday, September 10, 2007

JOURNAL CODE: IJGI LANGUAGE: English RECORD TYPE: Fulltext

DOCUMENT TYPE: Press Release

WORD COUNT: 547

...losses that resulted in either two or more flood insurance claims payments that together exceeded the value of the property or four or more flood insurance claims payments that each exceeded \$5,000. At least two of those payments must have occurred in a 10-year period, with the total claims paid exceeding \$20,000.

The Jefferson Parish municipalities covered in this application ranked No.1 for flood risk, No. 2 for storm surge and No.2 for levee failure in the context of relative risk as summarized by the state of Louisiana's hazard mitigation plan.

"I appreciate the cooperation of both the state GOHSEP and FEMA Transitional Recovery Office...

2/3,K/14 (Item 3 from file: 992)

DIALOG(R)File 992:NewsRoom 2007

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1455084416 17SY2LFZ

Federal Emergency Management Agency (FEMA)

Homeland Security Department Documents

Monday, September 10, 2007

JOURNAL CODE: JDGD LANGUAGE: English RECORD TYPE: Fulltext

DOCUMENT TYPE: Trade Journal SECTION HEADING: Federal Emergency Management Agency (FEMA)

WORD COUNT: 522

...flood losses that resulted in either two or more flood insurance claims payments that together exceeded the value of the property or four or more flood insurance claims payments that each exceeded \$5,000. At least two of those payments must have occurred in a 10-year period, with the total claims paid exceeding \$20,000.

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"I appreciate the cooperation of both the state GOHSEP and FEMA Transitional Recovery Office...

2/3,K/16 (Item 5 from file: 992)

DIALOG(R)File 992:NewsRoom 2007

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1393515248 17P30GWH

Assessment Rate Adjustment Guidelines for Large Institutions and Insured Foreign Branches in Risk Category I

Federal Register, v72, n092, p27122

Monday, May 14, 2007

JOURNAL CODE: CDFI LANGUAGE: English RECORD TYPE: Fulltext

DOCUMENT TYPE: Trade Journal SECTION HEADING: Notices ISSN: 0097-6326

WORD COUNT: 11,331

...Factors

The loss severity factors the FDIC will consider include both quantitative and qualitative information. Quantitative information will be used to develop estimates of deposit insurance claims and the extent of coverage of those claims by an institution's assets. These quantitative estimates can in turn be converted into a relative risk ranking and compared with the risk rankings produced by the initial assessment rate. Factors that will be used to produce loss severity estimates include: estimates for the amount of insured and non...

2/3,K/17 (Item 6 from file: 992)

DIALOG(R)File 992:NewsRoom 2007

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1351055575 17LG1Q8Q

Proposed Assessment Rate Adjustment Guidelines for Large Institutions and Insured Foreign Branches in Risk Category I

Federal Register, v72, n034, p7878

Wednesday, February 21, 2007

JOURNAL CODE: CDFI LANGUAGE: English RECORD TYPE: Fulltext

DOCUMENT TYPE: Trade Journal SECTION HEADING: Notices ISSN: 0097-6326

WORD COUNT: 8,780

...failure.

The loss severity factors the FDIC will consider include both quantitative and qualitative information. Quantitative information will be used to develop estimates of deposit insurance claims and the extent of coverage of those claims by an institution's assets. These quantitative estimates can in turn be converted into a relative risk ranking and compared with the risk rankings produced by the initial assessment rate. Factors that will be used to produce loss severity estimates include: Estimates for the amount of insured and non...

2/3,K/18 (Item 1 from file: 996)

DIALOG(R)File 996:Newsroom 2000-2003

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0552057767 160J1SF6

Letters to the editor

Anonymous

Journal of Dental Research, v81, n12, p804

Sunday, December 1, 2002

JOURNAL CODE: AMQZ LANGUAGE: English RECORD TYPE: Fulltext

DOCUMENT TYPE: Scholarly Journal ISSN: 0022-0345

WORD COUNT: 2,211

...caries in permanent teeth for children who manifested caries compared with children caries-free in the primary teeth; and (4) an increasing pattern of the ~~relative risk~~ associated with caries in permanent teeth as the mean dmfs and mean dmft ~~scores~~ in the primary teeth increase. In fact, our findings were consistent with the work performed by Heller et al. (2000), who used a different research approach. Based on ~~insurance claims~~ data, they reported that primary posterior teeth treatment was significantly associated with future caries treatment in first permanent molars. Their study, in addition to others...
?

? b 149,444,129,130,625,637;exstf704424608

S1 3575 (RELATIVE()RISK OR RR OR RISK()RATIO) (6N) (VALUE? OR FACTOR?
OR RANK? OR RATING OR RATE? ? OR RATIO OR SCORE? ? OR GRADE?
? OR VARIABLE?)
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ELIKHOOD OR POSSIBILITY OR POTENTIAL OR PROBABLE) (6N) (VALUE? ?
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RDS OR FILINGS)
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LAT? OR ASSIGN? OR INTELLIG? OR PROGRAM OR SOFTWARE OR PREDIC-
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OR RANK? OR MODEL? OR DATA()MINING OR HARVEST?)
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S7 1938220 MEDICAL OR HEALTH OR ILLNESS OR SICK OR CANCER OR FLU OR D-
ISEASE? OR EPISODE? OR EPISODIC?
S8 64894 (LIST? OR OUTPUT? OR DISPLAY? OR PRINT? OR ORDER? OR FILTE-
R?) (8N) (MEMBER? ? OR GROUP? ? OR INDIVIDUAL? ? OR CUSTOMER? ?
OR INSURED OR CLIENT? ? OR PATIENT? ?)
S9 727 S1 AND S2
S10 21 S4 AND S9
S11 17 S1 AND S4 AND S7 AND S8
S12 29 S10 OR S11
S13 425 S1(60N)S2
S14 3 S4(60N)S13
S15 1 S1(60N)S4(60N)S7(60N)S8
S16 4 S14 OR S15
S17 29 S10:S12 OR S14:S16
S18 16 S17 NOT PY>2000
S19 16 RD (unique items)
? t19/3,k/all

19/3,K/1 (Item 1 from file: 149)
DIALOG(R)File 149:TGG Health&Wellness DB(SM)
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01966626 SUPPLIER NUMBER: 69434512 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Implementation of Risk Adjustment for Medicare.
Ingber, Melvin J.
Health Care Financing Review, 21, 3, 119
Spring,
2000
PUBLICATION FORMAT: Magazine/Journal; Refereed ISSN: 0195-8631
LANGUAGE: English RECORD TYPE: Fulltext; Abstract TARGET AUDIENCE: Trade
WORD COUNT: 4203 LINE COUNT: 00355

... calibrated with total expenditures as the dependent variable of a
regression, and the coefficients of the demographic and disease variables
estimated as incremental expenditures. The risk-adjustment
scores are applied, however, as adjustments to standardized payment
rates, rather than as direct predictors of expenditures. The coefficients

are converted to relative adjustment factors by...are eligible because of disability and have higher factors than older non-disabled persons.

SOURCE: Health Care Financing Administration, Office of Strategic Planning, Research and Evaluation Group, 1999.

Using ~~claims~~ for the standard 5 percent sample of Medicare beneficiaries, average expenditures were computed for all age/sex groups, with and without Medicaid status. To derive...assigned.

The system all came together during fall 1999. Bill and encounter data from all sources were compiled and merged with demographic data to produce ~~relative risk factors~~ for all Medicare beneficiaries. The ratebooks for 2000 had been published the previous March, as directed by BBA. In December, January enrollments were determined and...

^19/3,K/3 (Item 3 from file: 149)
DIALOG(R)File 149:TGG Health&Wellness DB(SM)
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01950385 SUPPLIER NUMBER: 66924442 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Association Between Hematocrit Level and Mortality in Hemodialysis Patients

Case Study of the Anemic Patient.
Collins, Allan; Ellefson, Jennifer
Nephrology Nursing Journal, 27, 2, 233
April,
2000

PUBLICATION FORMAT: Magazine/Journal; Refereed ISSN: 1526-744X
LANGUAGE: English RECORD TYPE: Fulltext; Abstract TARGET AUDIENCE:
Professional
WORD COUNT: 3018 LINE COUNT: 00250

AUTHOR ABSTRACT: A large, 4-year, retrospective study of the HCFA end-stage renal disease (ESRD) ~~claims~~ database, Parts A and B, was conducted to ~~determine~~ the association between hematocrit (Hct) level and survival in patients on hemodialysis. Patients who survived the last 6 months of each year and had at...

... and 33% to 36% Hct groups, compared to the 30% to (is less than) 33% reference group (RR=1). Results were reported as two-tailed ~~relative risk probability values~~.

Results

The cohort sizes ranged from 45,701 patients in 1990 to 75,283 patients in 1993 (Table 1). The RR of mortality in the...

19/3,K/4 (Item 4 from file: 149)
DIALOG(R)File 149:TGG Health&Wellness DB(SM)
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01894966 SUPPLIER NUMBER: 60596009 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Subgroup analysis and other (mis)uses of baseline data in clinical

trials.(Statistical Data Included)
Assmann, Susan F; Pocock, Stuart J; Enos, Laura E; Kasten, Linda E
The Lancet, 355, 9209, 1064
March 25,
2000

DOCUMENT TYPE: Statistical Data Included PUBLICATION FORMAT:

...ABSTRACT: which the results of trials can be meaningless. Baseline data are those facts relevant to each patient prior to the start of the trial -- demographics, medical history, current symptoms, and disease treatment. Baseline data show the balance of patient selection, key factors in randomization, are used to analyze outcome, and to show if outcomes are contingent...

... extent and quality of such practices in major clinical trial reports.

Methods A sample of 50 consecutive clinical-trial reports was obtained from four major medical journals during July to September, 1997. We tabulated the detailed information on uses of baseline data by use of a standard form.

Findings Most trials...

...2000; 355: 1064-69

Introduction

For most randomised clinical trials, substantial baseline data are collected on each patient at randomisation. These data relate to demographics, medical history, current signs and symptoms, and quantitative disease measures (including some measured again later in the study as outcomes). Gathering of such baseline data seems to have four main aims. First, baseline data...

...uses of baseline data.

We aimed to describe and critically evaluate current practice on the use of baseline data in clinical-trial reports in major medical journals, and to make recommendations to enhance the quality of future reporting, especially on the dangers of overemphasising subgroup analyses.

Methods

We handsearched all reports...whether the subgroup analyses were predefined or post hoc. Most trials lacked power to detect any but very large subgroup effects.

Most trials reporting subgroup analysis did go on to claim a subgroup difference, in that the treatment difference depended on the patient's subgroup. Furthermore, most of these claims were stated in the trial's...

...of the characteristics of the patients rather than a comparison of treatment groups. What matters most are the few key predictors of the outcomes of patients, but some authors list many variables in unduly large and unexciting tables. Given journals' restrictions on space for tables and figures, authors may be denying themselves other more interesting difference between unadjusted and covariate-adjusted analysis sufficient to affect the conclusions; most estimates (eg, mean difference, relative risk), confidence limits, and p values were very similar. The likely explanation is that most covariates are not strongly related to outcome and are well-balanced between treatments. The one exception¹⁵ was a trial of cryptococcal...compared with the bypass-graft group (interaction test $p=0.003$). The investigators were clearly convinced by this finding, which led to a major public-health recommendation by the US National Institutes of Health. However, this was one of several exploratory subgroup analyses so that the risk of an

exaggerated false positive is not negligible. We feel that such...

...interaction (that assess whether a treatment effect differs between subgroups) should be used rather than inspection of subgroup p values, which often encourages inappropriate subgroup claims. Only if the statistical interaction test supports a subgroup effect should the conclusions be influenced. Even then, the emphasis should depend on biological plausibility, the number of subgroup analyses, their prespecification, and the statistical strength of evidence, recognising that most subgroup claims are prone to exaggerate the truth.

In multicentre trials, centre-adjusted analysis and treatment-by-centre interactions may be useful secondary analyses, but should not...

...the overall results.

Conclusion

Clinical trial reports need a clearly defined policy on uses of baseline data, especially with respect to covariate adjustment and subgroup analysis. There are substantial risks of exaggerated claims of treatment effects arising from post-hoc emphases across multiple analyses. Subgroup analyses are particularly prone to overinterpretation, and one is tempted to suggest "don...DG, Dore CJ. Randomisation and baseline comparisons in clinical trials. Lancet 1990; 335: 149-53.

8 Pocock SJ, Lagakos SW. Practical experience of randomisation in cancer trials: an international survey. Br J Cancer 1982; 46: 368-75.

9 RITA-2 trial participants. Coronary angioplasty versus medical therapy for angina: the second randomised intervention treatment of angina (RITA-2) trial. Lancet 1997; 350: 461-68.

10 Senn S. Testing for baseline balance...

...trials. JAMA 1991; 266: 93-98.

27 Pocock SJ, Hughes MD, Lee RJ. Statistical problems in the reporting of clinical trials: a survey of three medical journals. N Engl J Med 1987; 317: 426-32.

28 Frasure-Smith N, Lesperance F, Prince RH, et al. Randomised trial of home-based psychosocial...

...systolic hypertension. JAMA 1997; 278: 212-16.

30 Bypass Angioplasty Revascularisation Investigation (BARI) Investigators. Comparison of coronary bypass surgery with angioplasty in patients with multivessel disease. N Engl J Med 1996; 335: 217-25.

New England Research Institutes, Watertown, MA, USA (S F Assmann PhD, L E Enos MSc, L E Kasten MA); and Medical Statistics Unit, London School of Hygiene and Tropical Medicine, Keppel Street, London WC1E 7HT, UK (Prof S J Pocock PhD)

Correspondence to: Prof Stuart J...

19/3,K/5 (Item 5 from file: 149)
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01887486 SUPPLIER NUMBER: 58382231 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Assessment of the Safety and Efficacy Data for me Hypnotic Halcion(R):

Results of an Analysis by an Institute of Medicine Committee.
GIBBONS, Robert D.; BROWN, Byron W. M.; AZARNOFF, Daniel L.; BUNNEY,
William E.; CANCRO, Robert; GILLIN, John C.; HULLETT, Sandra; KILLAM, Keith
F.; KRYSTAL, John H.; KUPFER, David J.; STOLLEY, Paul D.; POPE, Andrew M.;
FRENCH, Geoffrey S.

Journal of the American Statistical Association, 94, 448, 993

Dec,

1999

PUBLICATION FORMAT: Magazine/Journal; Refereed ISSN: 0162-1459

LANGUAGE: English RECORD TYPE: Fulltext TARGET AUDIENCE: Trade

WORD COUNT: 8847 LINE COUNT: 00877

... Before Halcion reached the U.S. market, questions were already being raised about its safety. On reviewing the New Drug Application, the FDA's chief medical review officer expressed concern about (1) high rates of amnesia, incoordination, confusion, and other central nervous system--related side effects associated with Halcion (.5-1...by the National Academy of Sciences in 1970 to enlist distinguished members of the appropriate professions in the examination of policy matters pertaining to public health. In doing this, the institute operates under both the Academy's 1863 congressional charter responsibility to be an advisor to the federal government and its own initiative in identifying issues of medical care, research, and education.

Following the recommendation of their Task Force reviewing Upjohn's procedures and Halcion data, the FDA asked the IOM to perform al. 1993 for a review in mental health research). These models (generalized mixed-effects regression models) use all available data from each subject and thus provide a less biased reflection of the actual...1989), these regression lines inevitably cross for some extreme values of u, although typically not in the observed range. This can lead to negative fitted values for the response probabilities. Alternative model specifications that do not suffer from this potential problem have been suggested by Cox (1995) and McCullagh (1980) for the fixed-effects case...

...i.e., pooled over studies with varying duration) for each rating category of each of the four primary endpoints at the low dosage for nongeriatric patients (.25 mg) and geriatric patients (.125 mg) are displayed in Tables 1 and 2 relative to their respective placebo response proportions. These observed marginal proportions are presented to provide an overall view of the...of the drug.

3. IOM's statistical reanalysis of the data from trials using questionnaires to evaluate the subjects' sleep is clearly consistent with previous analyses, supporting the claim that Halcion positively affects the quality of sleep.

4. Polysomnographic data did not exhibit evidence of tolerance over time.

5. The committee found that a...and efficacy of Halcion provided a rich opportunity for interaction among statisticians, basic scientists, and clinical scientists in reviewing a complex topic of national public health importance. The conclusions of the committee may be controversial to those who have staked out previous positions about the benefit/risk ratio of Halcion regardless of their substance. The ability to review and synthesize a voluminous dataset from multiple sources and under multiple conditions has added considerable...

...Psychiatry, University of Illinois, Chicago, IL 60612 (E-mail:

rdgib@uic.edu). Byron W. M. Brown is Professor and Chair, Division of Biostatistics, Department of Health Policy and Research, Stanford University, Stanford, CA 94305. Daniel L. Azarnoff is President, D. L. Azarnoff Associates, Burlingame, CA 94080. William E. Bunney is Professor and Chair, Department of Psychiatry, University of California, Irvine, CA 92612. Robert Cancro is Professor and Chair, Department of Psychiatry, New York University Medical Center, New York, NY 10016. John Christian Gillin is Professor, Department of Psychiatry, University of California, San Diego, CA 92161. Sandra Hullett is Executive Director, West Alabama Health Services, Inc., Eutaw, AL 35462. The late Keith F. Killam was Professor and Chair Emeritus, Department of Pharmacology and Toxicology, University of California, Davis, CA...

...is Research Assistant, Institute of Medicine, Washington, DC 20418. This work was partially supported by a Research Scientist Award from the National Institute of Mental Health (grant K05-MH01254) to Gibbons. The authors thank Valerie P. Setlow, Constance M. Pechura (Institute of Medicine Division Directors), and Thelma L. Cox (Institute of...

19/3,K/6 (Item 6 from file: 149)
DIALOG(R)File 149:TGG Health&Wellness DB(SM)
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01879679 SUPPLIER NUMBER: 58575789 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Home-Care Use and Expenditures Among Medicaid Beneficiaries with AIDS.
Sambamoorthi, Usha; Collins, Sara R.; Crystal, Stephen; Walkup, James
Health Care Financing Review, 20, 4, 161
Summer,
1999
PUBLICATION FORMAT: Magazine/Journal ISSN: 0195-8631 LANGUAGE: English
RECORD TYPE: Fulltext; Abstract TARGET AUDIENCE: Professional; Trade
WORD COUNT: 9113 LINE COUNT: 00826

...AUTHOR ABSTRACT: Medicaid recipients with acquired immunodeficiency syndrome (AIDS) and among participants in a statewide Human Immunodeficiency Virus (HIV)/AIDS-specific home and community-based Medicaid waiver program in New Jersey, using Medicaid claims and AIDS surveillance data. Waiver program participation appears to mitigate racial and risk group differences in the probability of home-care use. However, the program's successes are confined to its...

The recent introduction of highly active antiretroviral treatment of HIV disease combined with aggressive use of prophylactic therapies for opportunistic infections continues to shift the nature of HIV/AIDS treatment from acute care to chronic management (Freedberg et al., 1998; Fogarty et al., 1997; Ettner and Weissman, 1994). In addition, advances in medical treatment have made it increasingly possible for AIDS patients to be cared for in their homes (Buchanan, 1995/1996). These technological changes in AIDS medical care, coupled with a desire on the part of Medicaid programs, the primary payers of AIDS-related services, (1) simultaneously to reduce the cost of...

...Jersey Medicaid eligibility file and the State's AIDS Registry. The file match was conducted under a cooperative agreement between the New Jersey Department of Health and Senior Services (DOHSS), which manages the AIDS Registry, and the State's Department of Human Services, Division of

Medical Assistance and Health Services (DMAHS), which administers the Medicaid program. The match covered persons eligible for Medicaid by March 1996 and persons in the State's AIDS Registry through March 1996. Dates of AIDS diagnosis were determined from the Registry and claims histories were extracted from adjudicated claims files, covering the period from 1988 until death or March 1996 (the last date through which claims histories were...
...and Ryan White CARE Act spending totaled \$5.8 billion (Graydon and Gordon, 1999). However, Medicaid has remained the largest public payer for AIDS-related medical care services, primarily because the epidemic has affected disproportionate numbers of low-income people and because even those people living with HIV/AIDS who are...

...care costs, particularly towards the end of life (Hellinger, Fleishman, and Hsia, 1994; Fleishman, Mor, and Laliberte, 1995). Estimates of the share of total AIDS medical costs attributable to inpatient care range from 63 percent to 89 percent, but have fallen over the course of the epidemic (Hellinger, 1993; Merzel et al., Miller, 1992).

The 1915c waiver legislation specifically lists seven services which may be provided in State programs: (1) case management, (2) homemaker services, (3) home health aide services, (4) personal care services, (5) adult day health, (6) habilitation, (7) respite care. HCFA may also grant approval for other services if they are needed by waiver participants to avoid being placed in a medical facility, such as transportation, in-home support services, meal services, special communication services, minor home modifications, and adult day care. States have the flexibility to...

...et al., 1989). The first of its kind in the country, ACCAP is a statewide program available on a voluntary basis to persons with HIV disease who are deemed to have medical and social needs that would otherwise require care in a skilled nursing or intermediate-care long-term care facility (Crystal et al., 1997). Waiver participants also receive "State plan" home-care services which are available to all Medicaid enrollees and include skilled nursing, home health aides, and medical social services, provided through State-licensed home health agency providers (Crystal et al., 1997).

To encourage participation, the waiver program is available to individuals with income levels above the regular Medicaid income threshold
...

...eligible to receive five other waived services: (1) private duty nursing by a registered nurse or licensed practical nurse, (2) personal care assistance, (3) specialized medical day care for persons with HIV, (4) home-based narcotic and drug abuse treatment, and (5) home-based hospice service, which was implemented in 1992...in Florida among participants. Satisfaction was also high among the program's case managers, who, despite long hours and high mortality rates in a very sick population of patients, had low turnover rates. The authors found that the major frustration to both case managers and participants was the strict eligibility requirements...

...researchers, who cleaned and organized these utilization data and merged them with data elements from the AIDS Registry and other administrative files such as waiver program client files. The claims histories contained all processed claims for services provided up to December 1996. To allow for time lags between receiving services, billing, payment,

and appearance of paid claims in the computerized database and because vital status information was available as of March 1996, services received through March 29, 1996 were included in the analyses. The claims files provided information on category of service, dates of service, and actual amounts paid by Medicaid for each of the services. Home-care claims in...

...Current Procedural Terminology (CPT) codes or HCFA Common Procedure Coding System (HCPCS) level 2 (National) or 3 (State level) codes. Identifying information was stripped in order to protect confidentiality and the individual records were linked by unique Medicaid numbers.

We used the following criteria to define our study population: diagnosis with AIDS by March 1996; age 18...Expenditure data were based on the actual amount reimbursed by the New Jersey Medicaid program and are reported in 1996 dollars based on the national medical care Consumer Price Index. Since the observation period varied among subjects depending on the start date of Medicaid participation and survival time, we computed expenditures...

...through the HCPCS procedure codes. Home nursing included skilled nursing and licensed practical nursing (LPN) services.(4) Paraprofessional services included personal care assistance and home health aide services.(5) Miscellaneous home-care services included psychotherapy, home drug treatment, medical day care, medical social services, and hospice.(6) Because everyone participating in ACCAP received case management, we excluded case management visits from expenditure and home-care use measures...

...patterns of decedents with non-decedents.

Geographical areas of New Jersey vary widely in HIV/AIDS prevalence and, therefore, in the extent to which the health care system has been impacted by the demands of AIDS care. The highest-prevalence area of the State for HIV/AIDS is the five-county...

...high prevalence of poverty and HIV. It includes such inner-city localities as Newark, Jersey City, and Paterson, and represents an area in which the health care system has had to respond to a substantial and growing volume of HIV/AIDS care needs. In our analyses, we included region as a...

...Medicaid enrollees, we separately examined home-care use for non-waiver and waiver program enrollees. We derived an indicator variable for participation in the waiver program by matching the claims file against the ACCAP client profile file provided to us as of May 1996. If the client appeared in both files, we classified the patient...

...of using any home-care service, home nursing and paraprofessional services. Parameter estimates from logistic regressions were transformed into odds ratios associated with each independent variable, which represent the relative risk ratios for a one-unit change in the dependent variable in question. Odds ratios that exceed one indicate an increased likelihood of using home-care...less than or equal to) 0.05.

NOTES: PWAs is persons with AIDS. IDUs is injection drug users. AIDS is acquired immunodeficiency syndrome.

SOURCES: Authors' computations from New Jersey Medicaid

claims data, 1998; New Jersey State Department of Health, 1996; and Centers for Disease Control and Prevention, 1996.

There are differences in the demographic makeup of the waiver and non-waiver populations relative to the statewide AIDS population. The... monthly expenditures by waiver status. Overall, 35 percent of Medicaid recipients with AIDS in our sample used home-care services at some point during their illness. Use of any home-care services was substantially higher in the waiver population than in the non-waiver population--83 percent of waiver program participants...managed care programs,

(*) t-test.

(**) p (is less than or equal to) 0.05.

() Chi-square test.

NOTE: AIDS is acquired immunodeficiency syndrome.

SOURCE: Authors' computations from New Jersey Medicaid claims data, 1998.

UTILIZATION: ALL HOME CARE SERVICES

We stratified our sample into waiver and non-waiver groups and estimated logistic regressions on use of home...

...and no participation in Medicare or managed care programs.

(*) $p < 0.05$.

NOTES: IDU is injection drug user. AIDS is acquired immunodeficiency syndrome.

SOURCE: Authors' computations from New Jersey Medicaid claims data, 1998.

Females were more likely to use home-care services than males in both waiver and non-waiver groups. There were also differences in...

...used home-care services in the non-waiver and waiver groups, but the difference between decedents and non-decedents was somewhat smaller in the waiver group.

UTILIZATION: HOME CARE SERVICES SUBGROUPS

In order to provide overall comparisons of the types of service utilized, home-care services were grouped into professional (home nursing), paraprofessional, and specialty services. Professional or...

...and as a State plan service. Among waived services, we defined personal care assistants as paraprofessional services and among State plan services we defined home health aide services as paraprofessionals. Home nursing and paraprofessional services represent the most widely used services and most of the expenditures. Specialty services, which are not shown in this article, include the waived services of home drug treatment, medical day care, and hospice, and the traditional Medicaid home medical social services. Since home nursing services and paraprofessional services make up the majority of expenditures for waiver enrollees (93 percent) and for non-waiver enrollees...diagnosed 1993 or later.

(*) $p < 0.05$.

NOTES: OLS is ordinary least squares. IDU is injection drug user. AIDS is acquired immunodeficiency syndrome.

SOURCE: Authors' computations from New Jersey Medicaid claims data, 1998.

In this analysis, too, there were marked differences in service mix by region of the State. Residence near New York City had a positive and significant impact on...

...functional status within the overall AIDS population as a result of superior HIV therapies. However, unless treatments improve enough to achieve permanent remission of HIV ~~disease~~, PWAs are likely to eventually become impaired enough to need home-care services. Therefore, it continues to be important to develop mechanisms to assure equitable access to these services. These needs may be ~~episodic~~ rather than long term and stable, suggesting the importance of flexibility in case management and service authorization; longitudinal studies of functional impairment in HIV ~~disease~~ suggest that month-to-month variability in impairment is substantial, with worsening and improvement both common occurrences (Crystal and Sambamoorthi, 1996). Newer treatments may reduce...These results are particularly troublesome because IDUs represent a large and growing segment of the HIV population. Additional efforts to identify and address the distinctive ~~health~~ care and social services needs of the IDU population may be warranted.

We found that home-care service mix varies substantially by geographic region in...

...acknowledge the cooperation and input provided by the New Jersey Department of Human Services, particularly the Office of Home-Care Services of the Division of ~~Medical~~ Assistance and ~~Health~~ Services; Shelley Gordon, HIV/AIDS Bureau Office of Policy and Program Development, ~~Health~~ Resources and Services Administration; T. Randolph Graydon, Director of the Division of Advocacy and Special Issues, Center for Medicaid and State Operations, HCFA; Verna Tyler...

...population derives from the fact that the statewide population statistics are cumulative AIDS cases.

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Immune Deficiency Syndromes 13(4):327-335, 1996.

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...in this article are those of the authors and do not necessarily reflect the views of Rutgers University, New York Academy of Medicine, or the Health Care Financing Administration (HCFA).

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Risk Adjustment for Dually Eligible Beneficiaries Using Long-Term Care.
McCall, Nelda; Korb, Jodi
Health Care Financing Review, 20, 2, 71
Winter,
1998

PUBLICATION FORMAT: Magazine/Journal ISSN: 0195-8631 LANGUAGE: English
RECORD TYPE: Fulltext; Abstract TARGET AUDIENCE: Professional; Trade
WORD COUNT: 9446 LINE COUNT: 01082

... Data from Arizona's Prepaid Medicaid Management Information System and New Mexico Medicaid data, January 1, 1991-September 30, 1992; statistics calculated from DxCG software output.

Group Predictive Accuracy

Table 7 shows group predictive ratios for subgroups for Medicare expenditures. A predictive ratio closer to 1.00 indicates better prediction; a ratio greater than 1.00 indicates overprediction...and the largest underprediction is for the highest expenditure quartile.

Demographic Calibration Models

Demographic calibration of the DCG model involved regressing actual expenditures against the relative risk scores generated by the DxCG software and age-sex variables and examining the individual and group predictive accuracy. This is done both for Medicare and total... percent is slightly larger than the 5.6 percent for the prospective HCC model of Medicare expenditures. Although these are relatively encouraging (R.sup.2) values, given that the relative risk scores were developed from Medicare expenditures, more thought needs to be given to modeling expenditures that include nursing home costs. Nursing home costs (which accounted for nearly 75 percent of this population's total expenditures in 1991) are not so much related to the individual's disease history but to the event of being institutionalized. Once placed in a nursing home, the variation in nursing home costs is only over a narrow...

...levels of predictive accuracy for total (Medicare plus Medicaid) expenditures will be difficult, mainly because of the nature of nursing home costs (which include additional medical service costs and housing costs) and our lack of knowledge about the substitution effects of all kinds of services, and especially of how services like...

...component of nursing home costs as part of the amount to be risk-adjusted. Once a patient has reached a certain threshold defined by a health, functional, and social assessment performed by an incentive-motivated case manager, this fixed amount would ...like to express their appreciation to Stanley Moore, who did the computer programming for this study. We are also grateful to the staff at the Health Care Financing Administration, especially our project officer, Jay Bae, James Lubitz, and Gerald Riley. Arlene Ash, Sean Aherne, and Randy Ellis of DxCG provided advice...

...model is one where prediction = a + b ((Gamma)) + c (demographic factors), and a, b, and c are determined by the new data. (Gamma) is the relative risk score predicted by the software.

(6) A better technique would have been to use a split-sample design, where one-half of the sample is used...

...analyses are available upon request from the authors.

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Malpractice Claims Against Family Physicians: Are the Best Doctors Sued
More?

Ely, John W.; Dawson, Jeffrey D.; Young, Paul R.; Doebbeling, Bradley N.; Goerdt, Christopher J.; Elder, Nancy C.; Olick, Robert S.
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... be sued the most.

METHODS. We conducted a retrospective cohort study of family physicians who were included in the Florida section of the 1996 American Medical Association's Physician Masterfile and who practiced in Florida at any time between 1971 and 1994 (N = 3686). The main outcome was the number of malpractice claims per physician adjusted for time in practice. Using regression methods, we analyzed associations between malpractice claims and measures of physician knowledge.

RESULTS. Risk factors for malpractice claims included graduation from a medical school in the United States or Canada (incidence rate ratio (IRR) 1.8; 95% confidence interval (CI), 1.6 - 2.1), specialty board certification (IRR 1.8; 95% CI, 1.6 - 2.1), holding the American Medical Association Physician's Recognition Award (IRR 1.4; 95% CI,

1.2 - 1.7), and Alpha Omega Alpha Honor Society membership (IRR 1.8; 95...

...of nonsued physicians (51.05 vs 51.38, $P = .93$).

CONCLUSIONS. Among Florida family physicians, the frequency of malpractice claims increased with evidence of greater medical knowledge.

KEY WORDS. Malpractice; medical errors; physicians, family; clinical competence; knowledge. (J Faro Pract 1999; 48:23-30)

It is commonly assumed that a physician's malpractice experience can be...

...1-4) This assumption has been endorsed by consumer advocates, (5,6) government agencies, (4,7,8) and physician organizations. (9) For example, the American Medical Association has proposed a uniform credentialing system with a set of requirements and standards. (9) One of these standards stipulates that the physician should have...

...of their care, such as a perceived lack of respect or concern. (13) An expert panel, blinded to the identity of these obstetricians, reviewed the medical records of their patients with adverse perinatal outcomes. (12) Among the 42 records from physicians with no malpractice claims, the panel found 8 relevant errors...

...practice better medicine than never-sued physicians.

At least 2 explanations could account for this improbable association. First, there may be an inverse relationship between medical knowledge and interpersonal skills. In a study of medical students, academic test results were negatively correlated with empathy scores on the California Psychological Inventory. (16) In addition, female physicians have better interpersonal skills (17-21) and are sued less often than male physicians, (22,23) but they tend to score lower on some written tests of medical knowledge. (21,24,25) Other investigators, however, have found no consistent relationship between interpersonal skills and academic performance. (26-29)

Second, more competent physicians might...

...oral communication, G. Tolleson, American Academy of Family Physicians, November 1997)

The purpose of our study was to assess the relationship between proxy measures of medical knowledge and the incidence of malpractice claims among family physicians. Although clinical competence includes both knowledge and performance, (32) we collected data reflecting only the knowledge component. However, medical knowledge correlates with more comprehensive measures of clinical competence. (33-37) We hypothesized that the most knowledgeable physicians would be sued most often. The importance of testing this hypothesis lies in the widely held belief that an adverse malpractice experience can be used as a marker of decreased medical competence. (4,5,7-9)

METHODS

SAMPLE

The study included 2 samples of family physicians. In the first sample, all Florida family physicians who were listed in the 1996 edition of the American Medical Association (AMA) Directory of Physicians in the United States (38) were eligible ($N = 5138$). This directory includes all physicians regardless of AMA membership or practice setting. For each physician, it lists the medical school, year of medical school

graduation, year of medical licensure, specialty board certification, AMA Physician's Recognition Award status, and self-reported specialty. The Physician's Recognition Award requires a minimum of 50 hours of continuing medical education per year.(39) In some analyses, we used the year of medical school graduation as a surrogate for physician age because it was more consistently available. We excluded 1088 physicians who had never held a Florida medical license or who were licensed after 1994. These recently licensed physicians ...physicians listed in the 1997 American Board of Family Practice (ABFP) Directory (N = 2124; after exclusions, final sample n = 1406). This sample was used to determine whether certification examination scores were associated with malpractice claims frequency.

The 2 study samples overlapped: 1361 physicians were in both the AMA and the ABFP directories; 2325 physicians were in the AMA directory but...

...in the ABFP directory but not the AMA directory.

DATA SOURCES

Since 1974, the Florida Department of Insurance has maintained a database of all closed medical malpractice claims, regardless of outcome. Companies that insure Florida physicians are required to report any malpractice claim that results in "(1) a final judgment in...

...a close friend or loved one who needed a (family physician) ... to whom would you refer them?" To determine the quality of United States (US) medical schools, we used the Gourman Report, a ranking based on admission requirements, qualifications of faculty, physical plant, and other criteria.(42) Mean Medical College Admission Test (MCAT) scores and grade point averages (GPA) of entering classes were obtained for US medical schools from various sources.(43-45) Information about family practice residencies was obtained from the American Academy of Family Physicians Directory of Family Practice Residency Programs(46) and the Directory of Board Certified Medical Specialists.(47) Alpha Omega Alpha (AOA) Honor Society membership was obtained from the most recent AOA directory.(48)

Among board-certified family physicians, we analyzed...

...name, middle initial, and suffix (Jr, Sr, III, and so forth) was considered valid. To differentiate duplicate names, we used additional information such as address, medical school, year of medical school graduation, and year of Florida medical license.

The study protocol and procedures to protect confidentiality were approved by the University of Iowa Institutional Review Board and the Board of Directors of the American Board of Family Practice.

ANALYSIS

The primary outcome variable was the malpractice claims incidence rate, which was defined as the total number of claims divided by the total number of years in practice for each physician. For example...

...physician reached age 65 (arbitrarily assumed age of retirement).

Variables potentially associated with malpractice claims included physician gender (male), graduation from a US or Canadian medical school, medical school quality,(42) medical degree (Doctor of Medicine (MD) vs Doctor of Osteopathy (DO)), family practice residency completion, American Board of Family Practice certification, listing in the Best Doctors...

...location, Alpha Omega Alpha Honor Society membership, and board certification examination score.

When considering residency completion, we limited the analysis to physicians who graduated from ~~medical~~ school in 1970 or later (n = 1745) because the first family practice residencies had been developed by that time. We excluded from this analysis 186 physicians who completed residencies in specialties other than family practice and 97 physicians for whom residency information was unavailable. When considering the quality of ~~medical~~ schools, we limited the analysis to US graduates (n = 1877), because the Gourman Report does not include ~~medical~~ schools outside the United States.(42) When considering Alpha Omega Alpha Honor Society membership, we limited the analysis to physicians who were licensed in Florida...13.4)

| | |
|---|---------------|
| Years of practice in Florida during study period | 14.9 (7.3) |
| | No. (%) |
| Male gender | 3143 (85.3) |
| Graduated from US or Canadian medical school | 2036 (55.2) |
| MD (vs DO) degree | 3625 (98.4) |
| Completed family practice residency(*) | 1196 (68.5) |
| Family Practice Board certification | 1766 (47.9... |

...Member of Alpha Omega Alpha Honor Society((double dagger)) 42 (1.3)

Nonurban practice location((sections)) 655 (17.8)

SD denotes standard deviation; AMA, American ~~Medical~~ Association.

(*) Proportion (68.5%) based on physicians who graduated from ~~medical~~ school after 1969 (n=1745).

((dagger)) An award granted by the American ~~Medical~~ Association requiring at least 50 hours of continuing ~~medical~~ education per year.

((double dagger)) Proportion (1.3%) includes only physicians licensed in Florida before 1989, the year of most recent Alpha Omega Alpha membership...

...by US Census Bureau (population greater than 50,000).

Physician characteristics associated with malpractice claims included physician gender (male), graduation from a US or Canadian ~~medical~~ school, Family Practice Board certification, the AMA Physician's Recognition Award, nonurban practice location, and membership in the Alpha Omega Alpha Honor Society (Table 2). There was a trend for residency-trained physicians to be sued more often. Characteristics not associated with claims included the quality of the ~~medical~~ school attended,(42) the ~~medical~~ degree (MD or DO), listing in Best Doctors in America: Southeast Region,(41) additional measures of ~~medical~~ school quality (average MCAT scores and GPA of entering class), and 2 residency characteristics (faculty-resident ratio and affiliation with a

medical school).

TABLE 2 Physician Characteristics Associated with Malpractice Claims
Adjusted for Years in Practice

| Characteristic | IRR |
|---|-----------|
| Male | 1.8 |
| Graduated from US or Canadian medical school | 1.8 |
| Quality of medical school attended(*) | 1.1 |
| MD (vs DO) degree | 0.7 |
| Completed family practice residency((dagger)) | 1.3 |
| Family Practice Board certification | 1.8 |
| Held AMA Physician's Recognition Award((double dagger)) | 1.4 |
| Listed in Best Doctors in America(41) | 0.9 |
| Member of Alpha Omega Alpha Honor Society((sections)) | 1.8 |
| Nonurban practice location((parallel)) | 1.4 |
| Characteristic | 95% CI |
| Male | 1.5 - 2.2 |
| Graduated from US or Canadian medical school | 1.6 - 2.1 |
| Quality of medical school attended(*) | 0.9 - 1.3 |
| MD (vs DO) degree | 0.4 - 1.1 |
| Completed family practice... | |
| ...Alpha Honor Society((sections)) | 1.1 - 3.0 |
| Nonurban practice location((parallel)) | 1.2 - 1.6 |
| Characteristic | P |
| Male | <.001 |
| Graduated from US or Canadian medical school | <.001 |
| Quality of medical school attended(*) | .46 |
| MD (vs DO) degree | .14 |
| Completed family practice residency((dagger)) | .06 |
| Family Practice Board certification | <.001 |
| Held AMA Physician's Recognition Award((double dagger)) | <.001 |
| Listed in Best Doctors in America(41) | .61 |
| Member of Alpha Omega Alpha Honor Society((sections)) | .02 |
| Nonurban practice location((parallel)) | <.001 |

Note: Each row of the table reports a simple negative binomial regression controlling for number of years in practice.

IRR denotes incidence rate ratio (analogous to relative risk); CI, confidence interval; AMA, American Medical Association.

(*) A continuous quality ranking (range = 3.0 to 5.0) based on the Gourman Report.(42) Analysis limited to US medical school graduates (n=1877).

((dagger)) Analysis based on physicians who graduated from medical school after 1969 (n = 1745).

((double dagger)) An award granted by the American Medical Association requiring at least 50 hours of continuing medical education per year.

((sections)) Includes ...independent of each other. For example, board-certified physicians were more likely than non-board-certified physicians to have graduated from a US or Canadian medical school.

Therefore, we used a multivariate analysis to identify independent associations between claims frequency and 5 of the risk factors that were significant in the univariate analyses. All 5 risk factors remained significant in the multivariate model: male gender (incidence rate ratio (IRR) 1.7; 95% confidence interval (CI), 1.4 - 2.1), graduation from a US or Canadian medical school (IRR 1.5; 95% CI, 1.3 - 1.7), Family Practice Board certification (IRR 1.6; 95% CI, 1.4 - 1.8), AMA Physician...

...of being sued at least once was 56% among those in a single high-risk group (board-certified male physicians graduating from US or Canadian medical schools) whereas the risk was only 17% among their low-risk counterparts (non-board-certified female physicians graduating from medical schools outside the United States).

Although many physicians have had 1 or 2 malpractice suits during their careers, a common assumption is that malpractice data...

...Categorized by Number of Claims

| 1 or 2 Claims | |
|---|-----------------|
| Characteristic | OR (95% CI) |
| Male | 1.7 (1.3 - 2.3) |
| Graduate of US or Canadian medical school | 2.0 (1.7 - 2.4) |
| Family Practice Board certification | 2.5 (2.1 - 3.0) |
| Held AMA Physician's Recognition Award(*) | 1.3... |

...6)

| (is greater than or equal to) 3 Claims | |
|---|-----------------|
| Characteristic | OR (95% CI) |
| Male | 3.1 (1.7 - 5.6) |
| Graduate of US or Canadian medical school | 4.1 (3.0 - 5.6) |
| Family Practice Board certification | 3.8 (2.8 - 5.0) |
| Held AMA Physician's Recognition Award(*) | 1.9... |

...or more years in practice (n = 2687).

OR denotes odds ratio (comparison group had no claims); CI, confidence interval.

(*) An award granted by the American Medical Association requiring at least 50 hours of continuing medical education per year ((dagger)) Those not living in an urbanized area as defined by US Census Bureau (population more than 50,000).

TABLE 4

Family...

...than or

equal to) 1 Claim;
0 with Payment

| Characteristic | OR (95% CI) |
|--|-----------------|
| Male | 2,1 (1.5 - 3.1) |
| Graduate of US or Canadian medical school | 2.7 (2.2 - 3.4) |
| Family Practice Board certification | 2.7 (2.2 - 3.4) |
| Held AMA Physician's Recognition Award(*) | 1.5... |

...equal to) 1 Claim;

| Characteristic | At Least 1 with Payment OR (95% CI) |
|--|--|
| Male | 2.0 (1.4 - 2.8) |
| Graduate of US or Canadian medical school | 2.1 (1.7 - 2.5) |
| Family Practice Board certification | 2.5 (2.1 - 3.0) |
| Held AMA Physician's Recognition Award(*) | 1.4... |

...or more years in practice (n = 2687).

OR denotes odds ratio (comparison group had no claims); CI, confidence interval.

(*) An award granted by the American ~~Medical~~ Association requiring at least 50 hours of continuing ~~medical~~ education per year.

((dagger)) Those not living in an urbanized area as defined by US Census Bureau (population more than 50,000).

After grouping physicians into 4 decades of practice, the oldest group (those practicing more than 30 years after ~~medical~~ school completion) had a lower claims frequency than the other 3 groups (2.4 claims per 100 physicians per year vs 4.2 claims per...

...of physicians. The frequency of claims peaked in the early 1980s and then fell until 1990, when it started to rise again. When year of ~~medical~~ school graduation and year of Florida licensure were included in the regression models, they did not meaningfully alter the other associations we found.

Among board-certified physicians, there was no association between the certification examination scores and the subsequent frequency of malpractice ~~claims~~. Our sample size was sufficient to ~~determine~~ a mean score difference of 1 point with 75% power and a mean difference of 2 points with 99% power. Sued physicians who made no...scores were unavailable for the 19 physicians who were certified in 1970 (first year the examination was offered).

DISCUSSION

In this study, physician characteristics that ~~predicted~~ malpractice ~~claims~~ included male gender, graduation from a US or Canadian ~~medical~~ school, Family Practice Board certification, the AMA Physician's Recognition Award, membership in the Alpha Omega Alpha Honor Society, and nonurban practice location. In other studies, characteristics found to be associated with greater ~~medical~~ knowledge include board certification, (52) graduation from a US or Canadian ~~medical~~ school, (53) and male gender. (21,24,25) Foreign ~~medical~~ graduates tend to score lower than US and Canadian graduates on the United States

Medical Licensing Examination(53) and on specialty board examinations.(54) Language barriers, however, may explain part of this difference.(55) The association between malpractice claims and the Physician's Recognition Award should be interpreted cautiously because the award status of each physician was determined from the 1996 AMA directory, whereas the malpractice claims occurred up to 25 years before 1996. Thus, the temporal relationship between the Award and the claim is opposite to the other relationships we studied and could represent a consequence of the claim rather than a determinant.

Our findings are consistent with other studies in which male gender(22,23) and board certification(23) were risk factors for malpractice claims. Other investigators have found no association between malpractice claims and medical degree (MD vs DO)(22) or medical school quality.(23) The secular trends found in this study and the relative infrequency of claims among older physicians are consistent with previous studies.(4,22) Our findings contrast with other investigators who found no association between malpractice claims and foreign medical graduate status(22,56,57) or board certification.(22) We found no association between claims frequency and listing in The Best Doctors in America: Southeast...

...of our study may not apply to other specialties because we surveyed only family physicians.

We did not measure several variables that are known to predict malpractice claims. For example, poor interpersonal skills are strong predictors of malpractice claims,(13,15) but these qualities are difficult to measure in large populations. Also, patient characteristics and independent judgments about negligence were not included in our...

...measures were generally determined at the start of the physician's career, rather than at the time of the malpractice claim. However, written tests of medical knowledge have been found to correlate with subsequent clinical competence and quality of care.(33-37) For example, in a study of family physicians, those with higher licensing examination scores were less likely to prescribe inappropriate medications and more likely to refer women aged 50 to 69 years for mammography.(37)

CONCLUSIONS

Our findings do not imply a...J. Hartz, MD, PhD, for their critical review of the manuscript.

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...Chicago, Illinois, on April 23, 1998. From the Department of Family Medicine (J.W.E., R.S.O.), the Department of Preventive Medicine and Environmental Health (J.D.D., B.N.D.), the Department of Internal Medicine (B.N.D., C.J.G.), and the Program in Biomedical Ethics and Medical Humanities (R.S.O.), University of Iowa College of Medicine, Iowa City; Iowa City Veterans Affairs Medical Center (B.N.D.); American Board of Family Practice, Lexington, Kentucky (P.R.Y.); and the Department of Family and Community Medicine, Oregon Health Sciences University, Portland (N.C.E.). Requests for reprints should be addressed to John W. Ely, MD, MSPH, University of Iowa Hospitals and Clinics, Department ...

19/3,K/9 (Item 9 from file: 149)
DIALOG(R)File 149:TGG Health&Wellness DB(SM)
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01775067 SUPPLIER NUMBER: 20448652 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Understanding epidemiology and its use in drug and medical device
litigation.

Parker, Bruce R.
Defense Counsel Journal, 65, n1, 35-61
Jan,
1998

PUBLICATION FORMAT: Magazine/Journal ISSN: 0895-0016 LANGUAGE: English
RECORD TYPE: Fulltext; Abstract TARGET AUDIENCE: Professional
WORD COUNT: 16179 LINE COUNT: 01335

... data that are normally distributed can be described by calculating the standard deviation. Depending on the data distribution, tests are selected to compute the P (probability) value.

Clinical data is generally not normally distributed.(34) Not uncommonly, physicians use a Students t-Test to evaluate biological data despite the fact that such...

...a Chi-Square test for discrete data.(35)

Traditionally, the role of chance in producing the observed results has been evaluated by calculating the P (probability) value. As discussed later, the P value is defined as the calculated probability of getting by chance alone the results obtained, assuming there was no association between exposure and disease.(36) Many epidemiologists, however, have begun to rely...three standard deviations

refer to the area or region in which 68, 95 and 99 percent, respectively, of the individual data points would fall.

3. Relative Risk (RR) and Odds Ratio (OR) and Attributable Proportion of Risk (APR)

An epidemiological study examines the statistical strength of an association between exposure and disease. An exposure is a...

...being studied. The percentage of exposed subjects who develop disease divided by the number of exposed subjects who do not develop the disease produces a risk ratio of disease among the exposed population. Similar risk ratios are calculated for the control population that develops the disease. To determine if the exposure produced an increase in the risk ratio of disease as a result of exposure, the risk ratio of the exposed and non-exposed populations are compared. The resulting quotient is called the relative risk (RR). The relative risk is obtained by dividing...by chance alone.

When reviewing an epidemiological study, careful attention must be given to where Alpha has been set, because by definition an investigator can claim that the results are statistically significant provided they meet the level of Alpha. If, however, an investigator has chosen an Alpha level higher than the customary .05, then a claim of statistical significance must be reviewed in the context of a study that has departed from conventional and accepted scientific standards.

If data meet the Alpha level...the probability of a false positive association) will increase the probability of a false negative (Beta) error.

5. P Value and Confidence Intervals

a. P Value

The P (probability) value is derived by analyzing data with an appropriate statistical test. If the P value is equal to or less than the pre-set Alpha level...

...is a more powerful statistical statement than if the analysis was done using the more customary 2-tail test.

b. Confidence Interval

Since the P value is only a statement of the probability of an event occurring in a sample of a much larger population, some argue that relying exclusively on the P value gives either more or...

...increasing Alpha. Alpha is increased to the point needed to increase the lower boundary of the confidence interval above 1. At that point, the experts claim that study, results are statistically significant. The expert will proclaim that the statistically significantly study demonstrates that the exposure caused the disease which the plaintiff has suffered.

This approach should...a mean, median or mode misleading?

* Could the statistical average as represented by either the mean, median or mode been affected by outliers?

* Was a claim of statistical significance (or lack thereof) achieved by using a 1-tail or 2-tail statistical test?

* Was a claim of statistical significance the result of multiple comparisons? If so, were appropriate statistical corrections performed on the data?

* Is the claim of a statistically significant relationship nevertheless biologically meaningful?

3. Is the data generalizable?

* Were the groups that were studied sufficiently different from those in a general population so...resulting from bias and confounding variables. Therefore, when interpreting an epidemiological study, one must always evaluate the quality of the data for bias and confounding variables before considering the RR as a reliable indicator of risk.

(42.) Gordis, supra note 4, at 145.

(43.) In the example above, high blood pressure had a high incidence

...

19/3,K/10 (Item 10 from file: 149)
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01742218 SUPPLIER NUMBER: 20179504 (USE FORMAT 7 OR 9 FOR FULL TEXT)
The new face of Medicare. (organized-crime involvement with
Medicare)(includes related articles)
Hedges, Stephen J.
U.S. News & World Report, v124, n4, p46(6)
Feb 2,
1998
PUBLICATION FORMAT: Magazine/Journal ISSN: 0041-5537 LANGUAGE: English
RECORD TYPE: Fulltext; Abstract TARGET AUDIENCE: Consumer; Trade
WORD COUNT: 3335 LINE COUNT: 00270

ABSTRACT: Medicare is a \$250 billion-a-year target for drug dealers and racketeers. The penalty-to-risk ratio for Medicare fraud is extremely positive for criminals. The annual loss of funds to fraud in Medicare is \$27 billion, or more than 10% of...

TEXT:

Gabriel Hernandez is not your typical medical practitioner. He couldn't tell an X-ray from an EKG. His sole preparation for a career in the field was 10 lucrative years as...

Hernandez set up more than two dozen phony medical clinics in the names of friends and relatives and applied for a "provider number," the code that doctors and companies use when they submit bills...

...than half funded by federal Medicare--gave him his provider number within two weeks. No one bothered to check his clinics, his background, or his list of patients. A few days later an assistant began billing the state, via computer, for mythical checkups and procedures, and Medicaid payment checks began to flow in...

...but also amazed at how simple, and safe, it all was. "The drug business was very dangerous," he says with a charming smile. But not health care fraud. "It was easy money, and there was no risk."

Federal investigators recently have zeroed in on allegations of Medicare bill padding by large...

...careers in Medicare fraud, a crime where penalties are low and rewards stratospheric. To realize this windfall, they have set up thousands of phony clinics, medical-equipment outlets, and laboratories--a vast underworld of health care that investigators find particularly difficult to understand, let alone penetrate. Owners are shielded by layers of "cut-out" companies. Lowly runners and mules are...

...and Caicos Islands, and Cyprus--and often back into the drug business. One Russian informant, in an interview, says Russian groups cleverly serve up defunct ~~medical~~ companies to investigators, diverting them from ongoing fraud. "We're always chasing something that isn't there anymore," says Bruno Varano, who heads the New York section of the Department of ~~Health~~ and Human Services' Office of Inspector General.

Win valuable prizes. The scams span the nation but are most often found in states where there are...

...Medicare and Medicaid populations. In New York, Florida, and California, federal agents say, Russian organized-crime figures run hundreds of clinics, testing centers, laboratories, and ~~medical~~-equipment companies that siphon millions of Medicare and Medicaid dollars each year. A pair of Russian emigres in New York's Brighton Beach, according to...

...and then used those numbers to bill Medicare for \$12 million. In New Jersey, authorities believe members of the Genovese organized-crime family used a ~~health~~-insurance brokerage to skim money from ~~health~~ care groups. One clinic owner suspected of Medicare fraud and drug dealing was shot down in 1996 outside his Miami clinic. Reputed narcotrafficker Frank Morfa...

...accountants who expertly fill out bogus Medicare claims, shady physicians who sign off on procedures never performed--that is now hard to separate from legitimate ~~health~~ care. This week, the Senate Permanent Subcommittee on Investigations is set to hold hearings on the criminal invasion of Medicare. One key witness and informant...

...Back then, Johnson and his advisers were afraid that doctors or hospitals would refuse to take part in the unprecedented government program. Medicare guarantees comprehensive ~~health~~ care to people ages 65 and older or disabled. Medicaid, funded by both federal and state governments, provides ~~health~~ care for low-income people. Both had been branded by critics as one step away from socialized medicine. So everything about the system was designed...

...Medicare patients. Paperwork was kept to a minimum, and a premium was placed on getting checks out the door so doctors, clinics, laboratories, and other ~~medical~~ service providers wouldn't have to wait for reimbursement.

Medicare officials today are racing to catch up with the explosion of fraud by screening ~~health~~ care providers more closely and by increasing criminal investigations. Despite that, the system still tilts heavily in favor of paying claims quickly over applying the...died years earlier. No one had bothered to erase those old numbers from the billing computers. In other places, the addresses of many clinics and ~~medical~~ companies have proved to be post office boxes. One phony magnetic resonance imaging (MRI) clinic in New York had its post box in a mailbox-rental store--emblazoned with a huge "Mail Drop" sign. A ~~medical~~-equipment company's address turned out to be the back of a laundromat. Near Miami, the listed mailing address of an MRI center is a...

...of the claims in the highly automated process.

Malcolm Sparrow of Harvard's Kennedy School of Government, author of License to Steal, a book on ~~health~~ care fraud, says he posed a not unlikely scenario to the executives of Medicare contractors: A fraudulent operator submits one claim for a ~~medical~~ procedure that requires a

\$1,500 Medicare payment. His bill is correctly coded, and the claim is paid. So the same operator submits 10,000...

...unusual, since a billing pattern hasn't developed. Or as one executive told him: "We would probably never notice. It's not our money."

The Health Care Financing Administration, the 4,000-person federal agency that runs Medicare, does require contractors to check for fraud. But its financial incentives send the...

...however: Blue Shield of California pleaded guilty and paid a \$1.5 million fine in 1996 to three felony counts that it altered mistake-prone claims and destroyed others to improve its "performance" rating with HCFA. Michigan Blue Cross/Blue Shield paid the government \$27 million and lost its Medicare contract altogether after admitting to falsifying data that HCFA...

...fired after objecting to the company's decision to turn off its "audit and edit" software--the controls that catch billing duplication and anomalies--when claims backed up on a new computer system. If the delays had been reported, the company would have faced costly penalties. But turning off the software meant that thousands of duplicate and possibly fraudulent claims were paid. The Justice Department took over Burr's suit and settled with the company for \$10 million--while allowing it to retain its Medicare...

...that greatly complicates the war on fraud is the lack of any central Medicare computer linking the entire system. Contractors use more than 30 different computer systems to process claims, so a contractor in Florida can't see if someone is submitting claims for the same patient in California. HCFA's ability to scrutinize such duplicate claims is limited, and the bad guys know this. In New York, a company called R. M. Lipsap Medical Supplies Inc. was found fabricating addresses for Medicare patients and then submitting \$1.5 million in claims using their Medicare numbers in a variety of...

...until they can build criminal cases. In Miami, federal agents have formed a special Medicare fraud task force, and the FBI recently used a home health care company as a front to ensnare a group now indicted on charges of laundering drug profits. In New York, agents nabbed a doctor who was prescribing unnecessary medical equipment and then planted a camera in her office. Equipment-company representatives kept calling on her, giving her money in exchange for her signature on...

...of patients in the real clinics and billed them again in the phony clinics.

Finder fees. What Hernandez describes is nothing less than the booming health care fraud "support industry," teams of accountants, computer billers, and check cashers whose "no questions asked" work ethic greases the fraud skids in places like...

...alleged kidnappers were arrested a short while later, driving around.

Juan Cortina wasn't so lucky. He was shot in September 1996 outside his Executive Health and Therapy Center on Miami's Flagler Street. Shortly afterward, someone tried to dig up clinic records that Cortina had buried in a lot he...

...rip off the Medicare program," says Nancy-Ann Min DeParle, HCFA's new

administrator. "We are making some big changes." These include visiting new home health care providers and medical-equipment companies before they get Medicare provider numbers. Min DeParle says that of 2,000 home health care agencies checked so far, 650 have been denied approval. HCFA this year has allocated \$150 million for contractors to use in fraud detection. And...including a national database that agents can tap into to see who is being investigated; a system that will require more information from those seeking health care provider licenses; and a \$50,000 bond for those who want to sell medical equipment under Medicare's aegis. New laws also prohibit felons, like Gabriel Hernandez, from getting licenses. Most notably, HCFA has continued its Operation Restore Trust...

...frustrated HCFA official working fraud cases in Florida. "And together, we have been remarkably ineffective."

Medicare by the numbers

| | |
|--|------------|
| Annual claims | \$250 bil. |
| Number of claims | \$800 mil. |
| Patients participating | \$38 mil. |
| Estimated annual loss to waste, fraud, and abuse | \$27 bil. |
| Total recovered through prosecutions in 1997 | \$1.2 bil. |
| Total claims audited by Medicare contractors | \$74... |

19/3,K/11 (Item 11 from file: 149)
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01670150 SUPPLIER NUMBER: 19128268 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Guidelines for school health programs to promote lifelong healthy eating.

Journal of School Health, v67, n1, p9(18)
Jan,
1997

PUBLICATION FORMAT: Magazine/Journal ISSN: 0022-4391 LANGUAGE: English
RECORD TYPE: Fulltext; Abstract TARGET AUDIENCE: Consumer; Professional
WORD COUNT: 18546 LINE COUNT: 01651

Guidelines for school health programs to promote lifelong healthy eating.

AUTHOR ABSTRACT: Healthy eating patterns in childhood and adolescence promote optimal childhood health, growth, and intellectual development; prevent immediate health problems, such as iron deficiency anemia, obesity, eating disorders, and dental caries and may prevent long-term health problems, such as coronary heart disease, cancer, and stroke. School health programs can help children and adolescents attain full educational potential and good health by providing them with the skills, social support, and environmental reinforcement they need to adopt long-term, healthy eating behaviors. This report summarizes strategies most likely to be effective in promoting healthy eating among school-age youths and provides nutrition education guidelines for a comprehensive school health program. These guidelines are based on a review of research, theory, and current practice, and they were developed by CDC in collaboration with experts from...

...coordinated curriculum, appropriate instruction for students, integration of school food service and nutrition education, staff training, family and community involvement, and program evaluation. (J Sch Health. 1997;67(1):9-26)

TEXT:

School-based programs can play an important role in promoting lifelong healthy eating. Because dietary factors "contribute substantially to the burden of preventable illness and premature death in the United States," the national health promotion and disease prevention objectives encourage schools to provide nutrition education from preschool through 12th grade.(1) The U.S. Dept. of Agriculture's (USDA) Nutrition Education and...

...offered in all schools, child care facilities, and summer sites" by the year 2000.(2) Because diet influences the potential for learning as well as health, an objective of the first national education goal is that children "receive the nutrition and health care needed to arrive at school with healthy minds and bodies."(3)

The recommendations in this report are intended to help personnel and policymakers at the school, district, state, and national levels meet the national health objectives and education goals by implementing school-based nutrition education policies and programs. This report may also be useful to students, to parents, and to personnel in local and state health departments, community-based health and nutrition programs, pediatric clinics, and training institutions for teachers and public health professionals. These recommendations complement CDC guidelines for school health programs to prevent the spread of AIDS,(4) to prevent tobacco use and addiction,(5) and to promote physical activity.(6)

In this report, nutrition...

...that promote healthy eating behaviors. The nutrition education guidelines focus largely on classroom instruction, but they are relevant to all components of a comprehensive school health program--health education; a healthy environment; health services; counseling, psychological, and social services; integrated school and community efforts; physical education; nutrition services; and school-based health promotion for faculty and staff.(7) Although the meals served by school food service programs are an important part of a school health program, this report does not provide specific recommendations related to purchasing and preparing food for school meals. Detailed information on this topic is available from...

...of Mississippi, University, MS 38677; 800/321-3054.

At the local and state levels, educational materials or curricula may be available from affiliates of voluntary health promotion organizations such as the American Cancer Society or the American Heart Association, commodity organizations or national boards for specific food industries, county cooperative extension services, local and state health departments, school districts, state education agencies, and universities. At the national level, nutrition education materials can also be obtained from the following voluntary organizations and federal government agencies:

American Cancer Society, 1599 Clifton Road, NE, Atlanta, GA 30328; 800/ACS-2345.

American Dietetic Association, National Center for Nutrition and Dietetics, 216 W. Jackson Blvd., Suite...

...CO 81009; 719/948-4000, call for catalog.

International Food Information Council, 1100 Connecticut Ave., NW, Suite 430, Washington, DC 20036; 202/296-6540.

National Cancer Institute, Office of Cancer Communications, Building 31, Room 10A16, 31 Center Drive, MSC-2580 Bethesda, MD 208922580; 800/4-CANCER.

National Heart, Lung, and Blood Institute Information Center, P.O. Box 30105, Bethesda, MD 20824-0105; 301/251-1222.

Team Nutrition, U.S. Dept. of...

...703/305-1624.

These guidelines are based on a synthesis of research, theory, and current practice and are consistent with the principles of the national health education standards, (29) the opportunity-to-learn standards for health education, (29) the position papers of leading voluntary organizations involved in child nutrition, (30) and the national action plan to improve the American diet. (31...

...considered the recommendations of national policy documents, (1,32-35) and consulted with experts from national, federal, and voluntary organizations.

EFFECTS OF DIET ON THE HEALTH, GROWTH, AND INTELLECTUAL DEVELOPMENT OF YOUNG PERSONS

School-based nutrition education can improve dietary practices that affect young persons' health, growth, and intellectual development. Immediate effects of unhealthy eating patterns include undernutrition, iron deficiency anemia, and overweight and obesity.

Undernutrition

Even moderate undernutrition can have...

...of language ability. (37) When children are hungry or undernourished, they have difficulty resisting infection and therefore are more likely than other children to become sick, to miss school, and to fall behind in class; (36,37) they are irritable and have difficulty concentrating, which can interfere with learning; (38) and...young persons is related to elevated blood cholesterol levels (53-56) and high blood pressure, (57-59) and some very obese youths suffer from immediate health problems such as respiratory disorders, orthopedic conditions, and hyperinsulinemia. (60) Being overweight during childhood and adolescence has been associated with increased adult mortality. (61,62...

...esteem. (63,64) Increased physical activity and appropriate caloric intake are recommended for preventing and reducing obesity. (35) CDC's guidelines for school and community health programs to promote physical activity among youths address strategies for increasing physical activity among young persons. (6)

Unsafe Weight-Loss Methods

Many U.S. young...

...disturbances in eating behavior. Anorexia nervosa is characterized by a refusal to maintain a minimally normal body weight, and bulimia nervosa is characterized by repeated episodes of binge eating followed by compensatory behaviors such as self-induced vomiting. (72) Eating disorders often start in adolescence, and more than 90% of cases...

...severe complications, and mortality rates for these disorders are among the highest for any psychiatric disorder.(74) Persons who have eating disorders should receive immediate ~~medical~~ and psychological treatment.

Dental Caries

Dental caries is perhaps the most prevalent of all ~~diseases~~.(1) It affects 50.1% of youths ages 5-17 and 84.4% of youths age 17.(75) More than 50 million hours of school time are lost annually because of dental problems or dental visits.(76) Dental caries is a progressive ~~disease~~, which, if left untreated, can result in acute infections, pain, costly treatment, and tooth loss. A strong link exists between sugar consumption and dental caries...

...have dental sealants applied to the pits and fissures of their teeth, and consume sugars in moderation.(1)

EFFECTS OF CHILDHOOD EATING PATTERNS ON CHRONIC DISEASE RISKS OF ADULTS

Nutrition education also should focus on preventing children and adolescents from developing chronic ~~diseases~~ during adulthood. Some of the physiological processes that lead to diet-related chronic ~~disease~~ begin in childhood. For example, autopsy studies have demonstrated that early indicators of atherosclerosis (the hardening of the arteries that is the most common cause of coronary heart ~~disease~~ (CHD)) begin in youth(77,83) and are related to blood cholesterol levels in young persons.(79,81-83) Unhealthy eating practices that contribute to chronic ~~disease~~ are established early in life; young persons having unhealthy eating habits tend to maintain these habits as they age.(84) Thus, it is efficacious to...

...young; high-risk eating behaviors and physiological risk factors are difficult to change once they are established during youth.

Diet-related risk factors for cardiovascular ~~disease~~ including high blood cholesterol level, high blood pressure, and overweight are common in U.S. youths.(34,52,85-90) Compared with their peers, children...

...death.(104) Interventions that promote healthy eating and physical activity behaviors during childhood and adolescence may not only prevent some of the leading causes of ~~illness~~ and death but also decrease direct ~~health~~-care costs and improve quality of life.

Diet is a known risk factor for the development of the nation's three leading causes of death: CHD, ~~cancer~~, and stroke.(33) Other ~~health~~ problems of adulthood associated with diet are diabetes, high blood pressure, overweight, and osteoporosis.

Coronary Heart Disease

CHD kills more persons in the United States than any other ~~disease~~.(1) Diet-related risk factors for CHD include high blood cholesterol, high blood pressure, and obesity. These risk factors can be reduced by consuming less fat (particularly saturated fat) and cholesterol and by increasing physical activity.(105)

Cancer

One of every five U.S. deaths is attributable to ~~cancer~~.(106) Dietary factors have been associated with several types of ~~cancer~~, including colon, breast, and prostate.(33) All U.S. ~~cancer~~ deaths might be reduced as much as 35% through dietary changes.(107,108) The risk for some types of ~~cancer~~ may be reduced by maintaining a healthy

weight; limiting consumption of fat, alcohol, and salt-cured, salt-pickled, or smoked foods; and eating more foods that protect the body against cancer (fruits, vegetables, whole grain cereals, and other high-fiber foods).(109) The National Cancer Institute advises eating at least five servings of fruits and vegetables each day.(110)

Stroke

Cerebrovascular disease, or stroke, is the third leading cause of death in the United States and a major cause of illness and disability.(111) The most important risk factor for stroke is high blood pressure, which often can be controlled or prevented by adopting a healthy ...

...to six times more common in persons who have diabetes than in persons who do not have diabetes.(113) Diabetes can lead to blindness, kidney disease, and nerve damage.(113) Non-insulin-dependent diabetes mellitus, which affects approximately 90% of persons who have diabetes, often is associated with obesity.(114) Maintaining...

...Overweight

In the United States, about one in three adults is overweight,(118) and these persons are at increased risk for CHD, some types of cancer, stroke, diabetes mellitus, high blood pressure, and gallbladder disease.(33) Overall risk for premature death is increased by excess weight; the risk increases as severity of overweight increases.(33) The best way to lose...

...for osteoporosis later in life.(1,119-122) Regular weight-bearing exercises also can help prevent osteoporosis.(33)

GUIDELINES FOR HEALTHY EATING

To prevent certain diseases and to promote good health, persons older than age two should follow the seven recommendations that constitute the Dietary Guidelines for Americans.(35) These guidelines are developed by the USDA and U.S. Dept. of Health and Human Services (DHHS) and are published every five years. They are based on extensive reviews of hundreds of studies conducted over many years and represent the best current advice that nutrition scientists can give. The guidelines are consistent with dietary recommendations made by major health promotion organizations, including the National Research Council,(32) the National Cholesterol Education Program, National Institutes of Health, (34,105) the National Cancer Institute,(109) the American Cancer Society,(123) and the American Heart Association.(124)

The principles contained in the Dietary Guidelines for Americans should be the primary focus of school-based nutrition education. By enabling young persons to adopt practices consistent with the guidelines, schools can help the nation meet its health objectives,(1) which were designed to guide health promotion and disease prevention policy and programs at the federal, state, and local level throughout the 1990s. Objective 2.19 is to "increase to at least 75% the proportion of the nation's schools that provide nutrition education from preschool through 12th grade, preferably as part of quality school health education."(1) The six relevant dietary guidelines are a) eat a variety of foods, b) balance the food you eat with physical activity--maintain or...

...and sodium. The seventh recommendation concerns adults and alcoholic beverages. Enabling children and adolescents to follow these guidelines can help the nation achieve these national health objectives for the year

2000:(1)

2.3 Reduce overweight to a prevalence of 20% or less among people age 20 and older and 15...

...greater amounts of foods from the groups that are lower in the pyramid: grains, vegetables, and fruits).(125) Other educational materials supplement the pyramid by listing low-fat choices within each food group.(35)

EATING BEHAVIORS OF U.S. CHILDREN AND ADOLESCENTS

Many U.S. young persons do not follow the recommendations of the Dietary Guidelines for Americans...

...iron than recommended by the Food and Nutrition Board of the National Research Council.(126,129)

Figure 2

Youth Risk Behavior Surveillance System and School Health Policies and Programs Study

In 1990, CDC established the Youth Risk Behavior Surveillance System to help monitor progress in attaining national health and education objectives by periodically measuring the prevalence of behaviors in six health risk categories. These behaviors, which usually are established during youth, contribute to the leading causes of death and disease in the United States. Dietary behaviors are one of the six health risk categories. CDC conducts the Youth Risk Behavior Survey (YRBS) biennially in a national probability sample of high school students and enables interested state and conducted the School Health Policies and Programs Study (SHPPS), which is a national study of school policies and programs at the school, district, and state levels that support comprehensive school health programs. The study also provides baseline data on national health and education objectives that can be attained through school health and physical education, school food service, and school health services and policies.(229)

SHPPS included a mail survey of local and state education agencies policies related to school health in K-12. The survey was conducted in all states and in a nationally representative sample of districts. The study also included on-site, structured interviews with school principals, health education teachers, physical education teachers, school food service directors, school nurses, counselors, and other personnel in a nationally representative sample of middle schools and high...

...or food service management companies in school meals.

Single copies of YRBS and SHPPS reports are available from CDC's Division of Adolescent and School Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Mailstop K-33, 4770 Buford Highway, NE, Atlanta, GA 30341-3724; 770/488-5330.

Children and adolescents appear to be familiar with the general relationship between nutrition and health but are less aware of the relationship between specific foods and health. For example, young persons understand the importance of limiting fat, cholesterol, and sodium in one's diet, but they do not know which foods are high in fat, cholesterol, sodium, or fiber.(45,132,133) One study indicated that adolescents were well-informed about good nutrition and health but did not use their knowledge to make healthy food choices.(134)

THE NEED FOR SCHOOL-BASED NUTRITION EDUCATION

Young persons need nutrition education to...

...innovative public and private partnerships that promote healthy food choices through the media, schools, families, and community.(151)

PROMOTING HEALTHY EATING THROUGH A COMPREHENSIVE SCHOOL HEALTH PROGRAM

In the school environment, classroom lessons alone might not be enough to effect lasting changes in students' eating behaviors;(30) students also need access...

...adults regarding foods and eating patterns. Students are more likely to receive a strong, consistent message when healthy eating is promoted through a comprehensive school health program.

A comprehensive school health program empowers students with not only the knowledge, attitudes, and skills required to make positive health decisions but also the environment, motivation, services, and support necessary to develop and maintain healthy behaviors.(152) A comprehensive school health program includes health education; a healthy environment; health services; counseling, psychological, and social services; integrated school and community efforts; physical education; nutrition services; and a school-based health program for faculty and staff.(7) Each component can contribute to integrated efforts that promote healthy eating. For example, classroom lessons on nutrition can be...

...by:

- * schools providing appealing, low-fat, low-sodium foods in vending machines and at school meetings and events,
- * school counselors and nurses providing guidance on health and, if necessary, referrals for nutritional problems,
- * community organizations providing counseling or nutrition education campaigns,
- * physical education instructors helping students understand the relationship between nutrition...

...service personnel serving healthy, well-balanced meals in the cafeteria, and

- * school personnel acting as role models for healthy eating.(153)

The USDA is promoting health-enhancing changes in the food service component of the school health program by requiring schools to serve meals that comply with the Dietary Guidelines for Americans(154) and by providing technical support to schools through Team Nutrition.(151)

RECOMMENDATIONS FOR SCHOOL HEALTH PROGRAMS PROMOTING HEALTHY EATING

Based on the available scientific literature, national nutrition policy documents, and current practice, these guidelines provide seven recommendations for ensuring a quality nutrition program within a comprehensive school health program. These recommendations address school policy on nutrition, a sequential, coordinated curriculum, appropriate and fun instruction for students, integration of school food service and nutrition...

...to develop the most effective and relevant nutrition education plans for their communities. Vigorous, coordinated, and sustained support from communities, local and state education and health agencies, institutions of higher education, and national organizations also is necessary to ensure success.(29)

Figure 3

Selected School-Based Strategies to Promote Healthy Eating...

...school students.(194) This list is not intended to be comprehensive. However, it does include many of the concepts critical to improving the diet and ~~health~~ of young persons in this country. Schools should review these educational activities in relation to their students' needs and abilities to determine which activities are...
...needs to guide its nutrition-related activities and who is responsible for the tasks.

For lower elementary students.

Strategies to make the food environment more ~~health~~-enhancing:

- * Make healthy foods such as fruits, vegetables, and whole grains widely available at school, and discourage the availability of foods high in fat, sodium...

...use food for reward or punishment of any behavior.

Strategies to enhance personal characteristics that will support healthy eating:

- * Make basic connections between food and ~~health~~ such as "You need food to feel good and to grow."

- * Teach the importance of balancing food intake and physical activity.

- * Identify healthy snacks such...

...unfamiliar and culturally diverse foods that are low in fat, sodium, and added sugars.

For upper elementary students.

Strategies to make the food environment more ~~health~~-enhancing:

- * Make healthy foods such as fruits, vegetables, and whole grains widely available at school, and discourage the availability of foods high in fat, sodium...

...punishment of any behavior.

Strategies to enhance personal characteristics that will support healthy eating:

- * Explain the effects that diet and physical activity have on future ~~health~~ as well as on immediate concerns such as current ~~health~~, physical appearance, obesity, sense of well-being, and capacity for physical activity.

- * Teach the principles of ...intake and physical activity.

- * Teach the importance of eating adequate amounts of fruits, vegetables, and whole grains.

- * Help students increase the value they place on ~~health~~ and their sense of control over food selection and preparation.

- * Increase students' confidence in their ability to make healthy eating choices by gradually building up...

...eating and physical activity; teach students how to respond to these pressures.

For middle and high school students.

Strategies to make the food environment more ~~health~~-enhancing:

- * Make healthy foods such as fruits, vegetables, and whole grains widely available at school, and discourage the availability of foods high in fat, sodium...

...eating and physical activity.

Strategies to enhance personal characteristics that will support healthy eating:

- * Explain the effects that diet and physical activity have on future health as well as on immediate concerns such as current health, physical appearance, obesity, eating disorders, sense of well-being, and capacity for physical activity.

- * Have students identify reasons to adopt healthy eating and physical activity...

...Teach the effects of unsafe weight-loss methods and the characteristics of a safe weight-loss program.

- * Help students increase the value they place on health and their sense of control over food selection and preparation.

- * Increase students' confidence in their ability to eat healthily by gradually building up their skills...

...Food Guide Pyramid. Have them assess and compare their intake of key nutrients such as calcium and iron with the intake recommended by the Public Health Service.

- * Have students set goals for healthy changes in eating and physical activity, identify barriers and incentives, and assess alternative strategies for reaching their goals...

...follow. Show students how to monitor their progress, revise their goals if necessary, and reward themselves for successfully attaining their goals.

- * Teach students how to evaluate nutrition claims from advertisements and nutrition-related news stories.

1. Policy: Adopt a coordinated school-nutrition policy that promotes healthy eating through classroom lessons and a supportive school environment.

2. Curriculum for nutrition education: Implement nutrition education from preschool through secondary school as part of a sequential, comprehensive school health education curriculum designed to help students adopt healthy eating behaviors.

3. Instruction for students: Provide nutrition education through developmentally appropriate, culturally relevant, fun, participatory activities...

...strategies.

4. Integration of school food service and nutrition education: Coordinate school food service with nutrition education and with other components of the comprehensive school health program to reinforce messages on healthy eating.

5. Training for school staff: Provide staff ...and community involvement: Involve family members and the community in supporting and reinforcing nutrition education.

7. Program evaluation: Regularly evaluate the effectiveness of the school health program in promoting healthy eating, and change the program as appropriate to increase its effectiveness.

Recommendation 1. Policy: Adopt a coordinated school nutrition policy that...

...eating through classroom lessons and a supportive school environment.

Rationale for the policy. A coordinated school-nutrition policy, particularly as part of an overall school-health policy, provides the

framework for implementing the other six recommendations and ensures that students receive nutrition education messages that are reinforced throughout the school environment...

...activities. The school

environment can powerfully influence students attitudes, preferences, and behaviors related to food.(137) Without a coordinated nutrition policy, schools risk negating the health lessons delivered in the classroom and cafeteria by allowing actions that discourage healthy eating behaviors.

Developing the policy. A school-nutrition policy should be a brief document that incorporates input from all relevant constituents of the school community: students, teachers, coaches, staff, administrators, food service personnel, nurses, counselors, public health professionals, and parents. The policy should meet local needs and be adapted to the health concerns, food preferences, and dietary practices of different ethnic and socioeconomic groups. Technical assistance for assessing nutrition education needs is available through the state NET...

...youths and adults. Schools might interview representatives from the school food service program; the state NET Program; the nutrition unit within the state Department of Health; the district or state school health coordinator; the local WIC program and Cooperative Extension nutrition education program; the state or local chapters of the American Cancer Society, American Dietetic Association, and the American Heart Association; nutrition councils or coalitions; university research programs; organizations with special insights into the particular nutrition education...

...plan as needed. Student involvement is critical to the success of a nutrition policy. A nutrition advisory committee or a nutrition subcommittee of the school health advisory council having student members can develop and promulgate a coordinated school nutrition policy. Technical assistance in forming a school nutrition advisory committee is available...

...of school and district educational leadership.

Content of the policy. The written policy should describe the importance of the nutrition component within the comprehensive school health program. This section can briefly describe the role of good nutrition in promoting childhood growth, health, and learning; discuss the role of child and adolescent nutrition in reducing the risk for chronic diseases of adulthood; identify the importance of establishing a school environment that supports healthy eating choices by young persons; and generate support for the policy by...

...providers.

Curriculum. Adequate time should be allocated for nutrition education throughout the preschool, primary, and secondary school years as part of a sequential, comprehensive school health education program. In addition, teachers should be adequately trained to teach nutrition and be provided with ongoing in-service training.

Healthy and appealing foods. As...part of fundraising activities. Although selling low-nutritive foods may provide revenue for school programs, such sales tell students that it is acceptable to compromise health for financial reasons(158) (Figure 4). The school thereby risks contradicting the messages on healthy eating given in class. If schools contract with food service...

...time and space to eat meals in a pleasant and safe environment.(162)

Links with nutrition service providers. Schools should establish links with qualified public health and nutrition professionals who can provide screening, referral, and counseling for nutritional problems;(30, 163) inform families about supplemental nutrition services available in the community...

...WIC,(164) food stamps, local food pantries, the Summer Food Service Program, and the Child and Adult Care Food Program; and implement nutrition education and health promotion activities for school faculty, other staff, school board members, and parents. These links can help prevent and resolve nutritional problems that can impair a...

...for school-age youths.

Recommendation 2. Curriculum for nutrition education: Implement nutrition education from preschool through secondary school as part of a sequential, comprehensive school health education curriculum designed to help students adopt healthy eating behaviors.

Nutrition education as part of a comprehensive school health education program. Nutrition education should be part of a comprehensive health education curriculum that focuses on understanding the relationship between personal behavior and health. This curriculum should give students the knowledge and skills they need to be "health literate," as delineated by the national health education standards(29) (Figure 5). The comprehensive health education approach is important to nutrition education because:

- * unhealthy eating behaviors may be interrelated with other health risk factors such as cigarette smoking and sedentary lifestyle,(165)

- * nutrition education shares many of the key goals of other health education content areas such as raising the value placed on health, taking responsibility for one's health, and increasing confidence in one's ability to make health-enhancing behavioral changes, and

- * state-of-the-art nutrition education uses many of the social learning behavioral change techniques used in other health education domains.

Figure 5

National Health Education Standards(29)

1. Students will comprehend concepts related to health promotion and disease prevention.

2. Students will be able to access valid health information and health-promoting products and services.

3. Students will be able to practice health-enhancing behaviors and reduce health risks.

4. Students will analyze the influence of culture, media, technology, and other factors on health.

5. Students will be able to use interpersonal communication skills to enhance health.

6. Students will be able to use goal-setting and decision-making skills to enhance health.

7. Students will be able to advocate for personal, family, and community health.

Therefore, nutrition education activities can reinforce, and be reinforced by, activities that address other health education topics

as well as health in general.

Linking nutrition and physical activity is important particularly because of the rising proportion of overweight youths in the United States. Nutrition education lessons...sequence, and adequate teacher preparation.(137) Therefore, integration into other courses can complement but should not replace sequential nutrition education lessons within a comprehensive school health education curriculum. Classroom time can be maximized also by having nutrition education lessons use skills learned in other classes such as math or language arts...

...questions.

Focusing on promoting healthy eating behaviors. The primary goal of nutrition education should be to help young persons adopt eating behaviors that will promote health and reduce risk for disease. Knowing how and why to eat healthily is important, but knowledge alone does not enable young persons to adopt healthy eating behaviors.(137)
Cognitive-focused...

...is less than) 0.05), positive changes in students' eating behaviors.(167, 181-190) Compared with students in control schools, students in some behaviorally based health and nutrition education programs had significant (p (is less than) 0.05), favorable changes in serum cholesterol levels,(167, 188, 191) blood pressure level,(167...

...on concrete experiences such as increasing exposure to many healthy foods and building skills in choosing healthy foods.(169)

More abstract associations between nutrition and health become appropriate as children approach middle school. By this age, children can understand and act on the connection between eating behaviors and health.(137, 194) Nutrition education for middle and high school students should focus on helping students assess their own eating behaviors and set goals for improving...

...education presents opportunities for young persons to learn about and experience cultural diversity related to food and eating. Students from different cultural groups have different health concerns, eating patterns, food preferences, and food-related habits and attitudes. These differences need to be considered when designing lesson plans or discussing food choices raising the value students place on good health and nutrition and identifying benefits of adopting healthy eating patterns, including short-term benefits that are important to young persons such as physical appearance, sense...

...capacity for physical activities,

- * giving students repeated opportunities to taste healthy foods, including foods they have not yet tasted,

- * working with parents, school personnel, public health professionals, and others to overcome barriers to healthy eating,

- * using influential role models, including peers, to demonstrate healthy eating practices,

- * providing incentives such as verbal...

...Recommendation 4. Integration of school food service and nutrition education: Coordinate school food service with nutrition education and with other components of the comprehensive school health program to reinforce messages on healthy eating.

The school cafeteria provides a place for students to practice healthy eating. This experience should be coordinated with...

...Children.(154)

To ensure consistent nutrition messages from the school, food service personnel should work closely with those responsible for other components of the school health program. For example, the personnel can:

- * help develop and implement school policies that make healthful foods available,

- * educate parents about the value of school meals such as put health messages in monthly menus sent home to parents or make periodic presentations at parents' association meetings,(11, 13)

- * help schools access and assess community public health and nutrition services, and

- * keep classroom teachers, physical education teachers, coaches, counselors, health-service providers, and other staff informed about the importance of healthy school meals.

Recommendation 5. Training for school staff: Provide staff involved in nutrition education with adequate preservice and ongoing in-service training that focuses on teaching strategies for behavioral change.

Training in nutrition and health education can increase the extent to which teachers implement a curriculum,(207-209) which in turn affects the likelihood that students' eating behaviors will change...

...so teachers can share experiences with their peers.(211, 212)

Teachers should understand the importance of fully

RELATED ARTICLE: Technical Advisors for Guidelines for School Health Programs to Promote Lifelong Healthy Eating Patterns

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RELATED ARTICLE: Participating Agencies and Organizations

American Academy of Pediatrics American Association of Family and Consumer Sciences American Association of School Administrators American Cancer Society American Dietetic Association American Heart Association American Public Health Association American School Food Service Association American School Health Association Association for the Advancement of Health Education Association of State and Territorial Directors of Health Promotion and Public Health Education Association of State and Territorial Health Officials Association of State and Territorial Public Health Nutrition Directors Council of Chief State School Officers Health Resources and Services Administration, U.S. Dept. of Health and Human Services Indian Health Service, U.S. Dept. of Health and Human Services Maternal and Child Health Interorganizational Nutrition Group National Association of Elementary School Principals National Association of School Nurses National Association of Secondary School Principals

National Association of State Boards of Education National Association of State NET Coordinators National Cancer Institute, U.S. Dept. of Health and Human Services National Congress of Parents and Teachers National Education Association National Food Service Management Institute National Heart, Lung, and Blood Institute, U.S. Dept. of Health and Human Services National School Boards Association National School Health Education Coalition Office of Disease Prevention and Health Promotion, U.S. Dept. of Health and Human Services Society for Nutrition Education Society of State Directors of Health, Physical Education, and Recreation U.S. Dept. of Agriculture U.S. Dept. of Education implementing the selected curriculum and become familiar with its underlying theory...

...nutrition professionals. Administrative support also is critical to implementing a new program.(214) Training for school administrators can help gain their support for nutrition education. Health promotion services for all school staff can affect positively their eating behaviors and their effectiveness in teaching healthy eating behaviors.(180,215,216)
Recommendation 6...

...invite parents and other family members to periodically eat with their children in the cafeteria,
* invite families to attend exhibitions of student nutrition projects or health fairs,(217)

* offer nutrition education workshops and screening services, and
* assign nutrition education homework that students can do with their families such as reading and interpreting food labels, reading nutrition-related newsletters, and preparing healthy recipes.

Through school health advisory councils or through direct contact with community organizations, schools can engage community resources and services to respond to the nutritional needs of students.(225,226) Schools can also participate in community-based nutrition education campaigns sponsored by public health agencies or voluntary organizations. Students are most likely to adopt healthy eating behaviors if they receive consistent messages through multiple channels such as home, school, community, and the media and from multiple sources such as parents, peers, teachers, health professionals, and the media.(225)

Recommendation 7. Program evaluation: Regularly evaluate the effectiveness of the school health program in promoting healthy eating, and change the program as appropriate to increase its effectiveness.

Policymakers should regularly review the effectiveness of the school nutrition...

...nutrition policy exists and is implemented as written,

* nutrition education is provided throughout the preschool, primary, and secondary school years as part of comprehensive school health education,

* teachers deliver nutrition education through developmentally appropriate, culturally relevant, fun, participatory activities that involve social learning strategies,

* teachers and school food service personnel have...

...fat milk.

Schools can consult with the state NET program or with evaluation specialists at universities, school districts, or the state departments of

education or health to identify methods and materials for evaluating the effectiveness of their program.(227,228) Valid evaluations can increase parent and community support for school programs, help schools reward teachers for exceptional work, and support grant applications for enhancing school health programs.

CONCLUSION

To ensure a healthy future for our children, school-based nutrition education programs must become a national priority. These programs should be part of comprehensive school health programs and reach students from preschool through secondary school. School leaders, community leaders, and parents must commit to implementing and sustaining nutrition education programs within...framework for establishing such programs. By adopting these recommendations, schools can help ensure that all school-age youths attain their full educational potential and good health.

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Statement of Purpose

The Journal of School Health an official publication of the American School Health Association publishes material related to

health promotion in school settings. Journal readership includes administrators, educators, nurses, physicians, dentists, dental hygienists, psychologists, counselors, social workers, nutritionists, dietitians, and other health professionals. These individuals work cooperatively with parents and the community to achieve the common goal of providing children and adolescents with the programs, services, and environment necessary to promote health and to improve learning.

Contributed manuscripts are considered for publication in the following categories: general articles, research papers, commentaries, teaching techniques, and health service applications. Primary consideration is given to manuscripts related to the health of children and adolescents, and to the health of employees, in public and private pre-schools and child day care centers, kindergartens, elementary schools, middle level schools, and senior high schools. Manuscripts related to college-age young adults will be considered if the topic has implications for health programs in preschools through grade 12. Relevant international manuscripts also will be considered.

Prior to submitting a manuscript, prospective authors should review the most recent...

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Physical restraint use in the hospital setting: unresolved issues and directions for research.

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... or adjacent to the individual's body that the individual cannot remove easily which restricts freedom of movement or normal access to one's body" (Health Care Financing Administration 1992, 76). Studies demonstrate that clinicians physically restrain hospitalized patients to prevent falls, to control agitated behavior, and to stop patients from...

...be free from any physical restraints imposed or psychoactive drugs administered for purposes of discipline or convenience, and not required to treat the resident's medical symptoms."(1) The burden lies on the nursing facility staff to justify the use of physical restraints; less restrictive alternatives must be tried first. The...

...strategies that successfully reduced the use of physical restraint in long-term-care institutions can be adapted to the acute-care environment. Patients' severity of illness, the intensity and delivery of care, the pace of activity, and even the amount of litigation differ

significantly between acute- and long-term-care institutional...

...a paper presented at the 1994 annual American Geriatrics Society Meeting revealed that, although the transition unit between the intensive care unit and the general medical floor at a teaching hospital had incidence rates of 8 percent and 5 percent, respectively, the medical and surgical ICUs had rates of 37 percent and 28 percent (Maddens et al. 1994).

These statistics are startling when the frequency of this practice...

...countries other than the United States and Canada, we conducted a literature search using four computerized databases: MEDLINE, from 1966 to 1995; Nursing and Allied Health (CINAHL), from 1982 to 1995; ClinPsych, from 1980 to 1995; and Health Planning and Administration (HEALTH), from 1975 to 1995. A text word search identified any reference in the title, abstract, or body of the article to the terms "physical restraint...In one of the first reported studies examining the use of physical restraints in a major teaching hospital, Frengley and Mion (1986) observed that the health care professionals (primarily physicians and nurses) seldom discussed the use of physical restraint. This observation was confirmed with a follow-up study (Mion, Frengley, et...

...the reason, or even the need, for physical restraint of the same patient.

MacPherson and associates (1990), in a study conducted at a Veterans Administration Medical Center, similarly found poor agreement between the primary physician and the primary nurse as to whether and why a physical restraint was used for the...

...confusion or presence of cognitive impairment

2. physical impairment, as evidenced by difficulty with activities of daily living (ADLs) or mobility

3. increased severity of illness

The presence of one or more of these characteristics increased the risk threefold of a patient being placed in physical restraints (Mion, Frengley, et al. 1989; Robbins et al. 1987).

A number of other factors, namely, older age, the presence of medical devices, and the use of tranquilizers, have been found to be associated with the use of physical restraints (Frengley and Mion 1986; Lofgren et al...

...term disabilities (Baker and Harvey 1985; Magaziner et al. 1989; Tinetti and Speechley 1989). Thus, preventing falls by the elderly is a major concern of health professionals (Morse 1993).

Hospital nurses used the argument that the use of physical restraints protected the patient from falling in 60 percent to 77 percent...restrained and nonrestrained residents of nursing facilities may be similar because staffs have accurately identified and subsequently restrained the high-risk patients.

Physicians and other health care professionals have questioned whether reducing restraints is safe for frail, elderly patients: "The abolition of physical restraints is not possible for all patients, and...

...the frequency with which these two types of therapy are disrupted, it is not surprising that the second most common reason cited by nursing and medical staff for using physical restraint was to prevent self-termination of therapy (MacPherson et al. 1990; Mion, Frengley, et al.

1989; Strumpf and Evans 1988...

...ratio for protection against harm from self-termination of various therapies is warranted for both physical restraint and alternative nonrestraint strategies.

Disruptive or Dangerous Behavior. Health care personnel in hospitals, especially those who practice in emergency departments, are faced with potentially dangerous or disruptive patient behavior. In fact, nurses in the...

...department. Almost all of the patients who were placed in physical restraints were considered "combative." Forty-three percent of the restrained patients required admission to medical or surgical services; only 3 percent of the seclusion or observation-only patients required hospitalization.

Others have reported that violent or combative behavior in general... The presence or history of cognitive impairment has been well documented as a risk factor in the development of delirium among elderly patients on general medical-surgical floors (Foreman 1989; Francis 1992). It stands to reason that the prevalence of cognitive impairment among elderly individuals who enter the emergency department, as...

...repositioning a physically restrained patient every two hours), it would be more costly to care for restrained patients than unrestrained patients with comparable levels of illness (Blakeslee 1989). On the other hand, hospital administrators are concerned about the anticipated costs of additional personnel used by nursing staff to monitor delirious or...

...Obligations to the Patient. Clinicians typically focus on the ethical principles of beneficence and nonmaleficence when caring for hospitalized patients, which leads to a frequent medical moral dilemma: how to prevent harm to the patient and simultaneously preserve the patient's autonomy (Schafer 1985). Imposing catheters for medication, monitoring, and procedures that are designed to help the protesting patient recover from illness may be at odds with preserving respect for the individuality and dignity of the patient. On the other hand, the disruption of such devices may...

...restraint is especially important for elderly patients, who develop complications from immobility more quickly than younger patients. Functional decline as a result of hospitalization and illness has been well documented in elderly hospitalized patients; the additional enforced immobilization from physical restraints contributes to the risk of further decline and loss of...physical restraint do not necessarily outweigh its very real risks. Proponents of physical restraint justify its use in hospitals on the basis of the greater risk ratio found in severely ill patients who require intensive therapies for survival. To resolve these uncertainties, the objective benefits and the extent of actual harm resulting...

...liability usually is cited as a major reason for using physical restraints in hospitals (Francis 1989). In future studies of physical restraint, the anxiety of health care providers and administrators must be addressed. Fear of legal liability for patient injuries, alleged to result from failure to safeguard the patient through the...

...product of skewed perceptions.

These findings in long-term-care institutions may not allay hospital clinicians' and administrators' fears of legal liability. The preponderance of health care malpractice litigation arises out of the hospital setting. From the same four-year database that Kapp and Johnson used to conduct their studies, more...

...as a form of criminal elder abuse.

The extent of litigation in hospitals arising from the use of physical restraints is unknown and should be determined. Legal claims have been brought successfully against hospitals and their personnel for inappropriate use of physical restraints and for failure to monitor and correct their adverse effects...when treatment was lifesaving.

Current Regulations for the Use of Physical Restraints

Government regulations and statutes regarding the use of physical restraints are important to health care institutions and their staff for several reasons. Courts tend to look at these statutes and regulations as evidence of the appropriate standard of care...

...the standards are ambiguous and leave room for varying interpretations and applications.

Four years ago, the U.S. Food and Drug Administration (1992) issued a Medical Alert on potential hazards of restraint devices. The Safe Medical Devices Act(2) requires hospitals, nursing homes, and clinics to report deaths and injuries related to the use of physical restraints to the FDA, where...

...population with acute illnesses, greater heterogeneity of needs and responses to care, and relatively short lengths of stay. These conditions impede the hospital nursing and medical personnel's ability to become familiar with patients and to entertain alternative, nonrestraining strategies of care.

A recent national survey of more than 500 hospital, nursing, and medical administrators revealed that few know the extent of the use of physical restraints in their facilities, but most have serious concerns regarding the ethical, legal...

...incidence of physical restraint use in relation to patient characteristics: types of restraints, length of time spent restrained, concomitant uses of psychotropic medications, and the medical and legal consequences.

Data from well-designed investigations would serve to guide and support practice changes. Researchers, in cooperation with hospitals or professional groups, may...

...the same unit from nurse to nurse. Thus, studies are also necessary to determine ways to understand and respond effectively to the needs communicated by patient behaviors in order to enhance patient outcomes and to avoid episodes of agitation and dangerous self-termination of treatment. All of these studies must incorporate costs in their design.

Legal and ethical issues will, of necessity...Brayley, J., R. Lange, C. Baggoley, M. Bond, and P. Harvey. 1994. The Violence Management Team: An Approach to Aggressive Behavior in a General Hospital. Medical Journal of Australia 161(4):254-8.

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...D., C. Hawes, and B.E. Fries. 1993. Reducing the Use of Physical Restraints in Nursing Homes: Will it Increase Costs? American Journal of Public Health 83:342-8.

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...of Nursing Administration 9:31-5.

Warshaw, G., J. Moore, S. Friedman, et al. 1982. Functional Disability in the Hospitalized Elderly. Journal of the American Medical Association 248:847-50.

Werner, P., J. Cohen-Mansfield, J. Braun, and M.S. Marx. 1989. Physical Restraints and Agitation in Nursing Home Residents. Journal...in critical care units. Her primary research interest lies in processes of care and outcomes in hospitalized elderly.

Marshall B. Kapp is professor of community health and psychiatry and director of the Office of Geriatric Medicine and Gerontology at Wright State University School of Medicine in Ohio. He is also an adjunct professor at the University of Dayton School of Law. Mr. Kapp focuses on the legal and ethical aspects of health care, particularly as they pertain to older persons. He is currently writing about the negative relation between defensive medicine and ethical medical practice.

Karen Lamb is assistant professor and practitioner-teacher at Rush University College of Nursing in Chicago. She is interested in the practice of restraint...

...Ann Minnick is a professor and Independent Chair at Rush University, and director of nursing services research and support at Rush-Presbyterian-St. Luke's Medical Center in Chicago. She is conducting studies of physical restraint use in U.S. hospitals and is also interested in exploring the impact of labor and administrative practice and policies on

patient-focused outcomes in a variety of health care settings.

Robert Palmer is head of the Section of Geriatric Medicine at the Cleveland Clinic Foundation in Ohio. Dr. Palmer specializes in the assessment and medical care of frail, elderly patients. His research focuses on improving their functional outcomes after hospitalization.

...DESCRIPTORS: Medical ethics

19/3,K/13 (Item 13 from file: 149)
DIALOG(R)File 149:TGG Health&Wellness DB(SM)
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01376787 SUPPLIER NUMBER: 12113113 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Passive smoking and your heart. (includes related article on environmental tobacco smoke social movement)
Huber, Gary L.; Brockie, Robert E.; Mahajan, Vijay K.
Consumers' Research Magazine, v75, n4, p13(9)
April,
1992
PUBLICATION FORMAT: Magazine/Journal ISSN: 0095-2222 LANGUAGE: English
RECORD TYPE: Fulltext; Abstract TARGET AUDIENCE: Academic
WORD COUNT: 6272 LINE COUNT: 00517

... that on the basis of epidemiological data is reported to be associated with the development of disease.

The risk is usually expressed as an "odds-ratio," or a "risk ratio," which measures "relative risk" in comparison to some control group or population which has not been exposed to the factor in question. If there is no difference in the... interpretation. When the relative risk is less than 2.0, there is a strong possibility (or probability) that the association is artifactual--that is, the relative risk may actually be due to confounding factors where two or more potential associations cannot be separated or distinguished. (A confounding factor, in this context, can be defined in the most simple of...risk that reach statistical significance, and seven of the data sets report changes that are not statistically significant at conventional levels of biostatistical acceptance.

A relative risk ratio is an estimated average change in the disease rate associated with the studied variable; in all of these studies, then, the relative risk is the...

...of science "trends" in these kinds of data do not count, there are legitimate ways to assess whether or not such "trends" might have some "statistical significance." Seven of the nine original reports claim and discuss "trends" in their results, even when their own published statistical analyses of these data demonstrate that the proposed "trends" had no statistical significance...factor under investigation (in this case, reported exposure to ETS). All of the more than 300 cardiovascular risk factors that have been identified are confounding variables and many have the same approximate relative risk or risk ratio as that reported for spousal smoking.

If these confounding variables are not evaluated and controlled for in an epidemiological study on ETS, how then can...will cause a blockage. (2) A 95% confidence interval is a statistical expression of a range of values that have, as listed here, a 95% probability of including the true

value for the effect of nonsmokers living with smoking spouses,
compared to nonsmokers living with nonsmoking spouses. (3) Meta-analysis is
a way of pooling or...

19/3,K/14 (Item 1 from file: 444)
DIALOG(R)File 444:New England Journal of Med.
(c) 2009 Mass. Med. Soc. All rts. reserv.

00114411
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p53 and Bladder Cancer (Correspondence)

Li, William W.; Li, Vincent W.; Tsakayannis, Dimitris; Xing, Xueping;
Wood, Lowell L.; Cote, Richard J.; Skinner, Donald G.; Jones, Peter A.
The New England Journal of Medicine
Apr 6, 1995; 332 (14),pp 957-958
LINE COUNT: 00135 WORD COUNT: 01876

TEXT

...1) demonstrate that the immunohistochemical detection of p53 protein in
bladder-tumor cells predicts the progression of disease independently of
the tumor stage and histologic grade and correlates with an increased
risk of recurrent tumor and mortality. This work, combined with
recent advances such as the purification of angiostatin, an endogenous
inhibitor of tumor angiogenesis, (Ref. 2...

...any cause to represent treatment failures, which may be arguable, since
one would normally censor deaths unrelated to the cancer or its
complications. The authors claim that they did "a multivariable
analysis," but it appears that they performed only a stratified
analysis according to grade, pathological stage, and presence or absence of
lymph-node metastases, not a...patients with p53 nuclear accumulation was
2.19 times that for patients with no detectable p53 expression ($P < 0.001$);
on the basis of log-rank calculations, the relative risk
was 2.00 ($P < 0.001$...

19/3,K/15 (Item 2 from file: 444)
DIALOG(R)File 444:New England Journal of Med.
(c) 2009 Mass. Med. Soc. All rts. reserv.

00109224
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Effects Of Medicaid Drug-Payment Limits On Admission To Hospitals And
Nursing Homes (Special Article)

Soumerai, Stephen B.; Ross-Degnan, Dennis; Avorn, Jerry; McLaughlin,
Thomas J.; Choodnovskiy, Igor.
The New England Journal of Medicine
Oct 10, 1991; 325 (15),pp 1072-1077
LINE COUNT: 00416 WORD COUNT: 05753

...Many state Medicaid programs limit the number of reimbursable

medications that a patient can receive. We hypothesized that such limitations may lead to exacerbations of illness or to admissions to institutions where there are no caps on drug reimbursements.

Methods. We analyzed 36 months of Medicaid claims data from New Hampshire, which had a three-drug limit per patient for 11 of those months, and from New Jersey, which did not. The...

...older who in a base-line year had been taking three or more medications per month, including at least one maintenance drug for certain chronic diseases. Survival (defined as remaining in the community) and time-series analyses were conducted to determine the effect of the reimbursement cap on admissions to hospitals...

TEXT

...Concern has mounted that cost-containment policies implemented during the 1980s may be compromising the quality of care and the health of vulnerable populations, such as poor and chronically ill elderly people, although few studies have examined this question (Ref. 1,2). Charges to the patient...

...measure possible changes in use of institutional services. One hypothesized effect of the cap was an increase in nursing home admissions, due either to deteriorating health or to a desire to shift to an environment exempt from the cap. If the loss of essential medications led to an acute deterioration in health, one might also expect increased hospital admissions. In the current study, we analyzed 36 months of additional nondrug claims and enrollment data from Medicaid to answer the following question: Among low-income, elderly Medicaid patients, is limiting access to medications associated with increased rates stay would automatically be reimbursed from the first month of residence; we thus avoided the problem of missing data during periods when patients must expend their resources in order to reach eligibility levels...

...systems contain data on all such services for which Medicaid paid a deductible or coinsurance amount. For the first inpatient admission in each spell of illness, Medicaid pays a fixed deductible amount. We used the Medicaid data to determine inpatient hospital episodes by identifying each overnight service delivered at an acute care hospital for which the reimbursed amount was greater than or equal to the deductible amount...

...at least one prescription per quarter during the base-line year; and used medication for one or more of five major chronic illnesses (diabetes, heart disease, chronic obstructive pulmonary disease and asthma, seizures, or conditions requiring the use of anticoagulants). Because outpatient diagnoses are often unreliable, (Ref. 16) the regular receipt, before the cap, of...

...as targeted illnesses (e.g., beta-blockers are indicated for both hypertension and angina), had questionable efficacy, or were associated with less serious levels of illness. Thus, although they led to the exclusion of some patients with targeted illnesses, the strict criteria for regular drug use served to increase the base...

...cohorts.

Regular Use of Other Medications

In addition to the core drugs, we also identified 21 other classes of drugs commonly used to treat chronic health problems. These included other agents to treat cardiovascular diseases (diuretic agents, beta-blockers, other antihypertensive drugs, and potassium supplements); oral hypoglycemic agents and diabetes-testing supplies; psychoactive medications (anxiolytic, hypnotic, antipsychotic, and antidepressant drugs ...

...the core medications. One standard dose equaled the median number of milligrams of active ingredient per month received by all the patients who filed a claim for each study drug.

Statistical Analysis

Using survival analysis, we measured the rate of admission to hospitals and nursing homes in New Hampshire and New Jersey during three periods: base line (April 1981 to...year before the cap policy was instituted, approximately four out of five patients in both cohorts were regular recipients of core medications indicated for heart disease; rates of regular use of medications for chronic obstructive pulmonary disease and asthma, diabetes, and seizures were all similar, as were rates of use of anticoagulant agents. The total number of classes of drugs taken regularly...

...however, the excess risk of admission to a nursing home was even greater for these sicker patients in the study cohort, more than double the rate in the comparison cohort (relative risk = 2.2; 95 percent confidence interval, 1.2 to 4.1; two-sided P = 0.0004). By the end of the cap period, an estimated...long-term residents were still in nursing homes during the final month of observation.

Effects on Hospital Admissions

Analyses of time to first inpatient hospital episode were similarly stratified according to the number of classes of drugs the patients took regularly. Patients who regularly used drugs from three or more classes...

...abandoned. These effects were concentrated among patients who regularly used three or more study medications, indicating heightened vulnerability among patients with more than one chronic illness. A separate, ongoing analysis in New Hampshire also indicates an association between the rate of reduction in drug use due to the cap and the...

...Were nursing home admissions caused by declining health or by the desire to maintain the use of essential medications, because the three-drug limit did not apply in long-term care facilities? Since...

...mechanisms of effect. The increase in nursing home admissions among the patients at highest risk suggests that the loss of medications could have exacerbated preexisting medical problems. However, because patients are often admitted to nursing homes without earlier hospitalization, (Ref. 21) and given case reports by New Hampshire Legal Assistance of...

...been too low to be measured against the high background rate in a chronically ill population. In addition, the measure used (time to first hospital episode) is insensitive to changes in the rates of repeated events; we unfortunately did not have access to data from the primary payer for hospital services...

...outcomes. All the patients received more than 36 prescriptions in the base-line year, a rate of medication use strongly associated with

fair-to-poor health in an earlier national ...Changes in health care reimbursement policies have probably had sizable effects on elderly and low-income patients over the past decade, but objective data on their effects on...

...for researchers and policy makers is to discover which cost-containment methods are most efficient in reducing ineffective care while preserving access to forms of medical technology that benefit both individual patients and society as a whole...

CITED REFERENCES

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...J Am Stat Assoc 1958;53:457-81.
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22. Public Health Service, National Center for Health Services Research and Health Care Technology Assessment. Prescribed medicines: a summary of the use and expenditures by Medicare beneficiaries. Research findings 3. Rockville, Md.: Department of Health and Human Services, 1989. (DHHS publication no. (PHS) 89-3448).

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24. Hsiao WC, Sapolsky HM, Dunn DL, Weiner SL. Lessons of the New Jersey DRG payment system. ~~Health~~ Aff (Millwood) 1986;5:32-45.
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19/3,K/16 (Item 1 from file: 637)
DIALOG(R)File 637:Journal of Commerce
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INSURERS URGED TO SPEAK UP ON RISK-BASED FORMULA
JOURNAL OF COMMERCE (JC) - Wednesday, December 9, 1992
By: Journal of Commerce Staff Craig Dunlap
Edition: FIVE STAR Section: INSURANCE Page: 8A
Word Count: 551

...1996, to adopt the law.

The approved formula will factor in calculations of an insurer's asset risk, insurance risk, interest rate risk and business ~~risk~~.

With asset risks, the reported asset ~~value~~ in each category is multiplied by a ~~factor~~ reflecting the category's ~~relative~~ risk.

Insurance risk, the chance that ~~claims~~ might exceed expectations, is ~~calculated~~ with factors representing the surplus needed to provide for excess claims.

Interest rate risk measures the risk that interest rate changes will prompt policyholders to...

IV. Text Search Results from Dialog

A. Abstract Databases

? show files;ds
File 350:Derwent WPIX 1963-2009/UD=200950
(c) 2009 Thomson Reuters
File 344:Chinese Patents Abs Jan 1985-2006/Jan
(c) 2006 European Patent Office
File 347:JAPIO Dec 1976-2009/Mar(Updated 090708)
(c) 2009 JPO & JAPIO
File 371:French Patents 1961-2002/BOPI 200209
(c) 2002 INPI. All rts. reserv.
File 2:INSPEC 1898-2009/Aug W1
(c) 2009 The IET
File 35:Dissertation Abs Online 1861-2009/Jul
(c) 2009 ProQuest Info&Learning
File 65:Inside Conferences 1993-2009/Aug 12
(c) 2009 BLDSC all rts. reserv.
File 99:Wilson Appl. Sci & Tech Abs 1983-2009/Jul
(c) 2009 The HW Wilson Co.
File 256:TecTrends 1982-2009/Aug W2
(c) 2009 Info.Sources Inc. All rights res.
File 474:New York Times Abs 1969-2009/Aug 12
(c) 2009 The New York Times
File 475:Wall Street Journal Abs 1973-2009/Aug 12
(c) 2009 The New York Times
File 583:Gale Group Globalbase(TM) 1986-2002/Dec 13
(c) 2002 Gale/Cengage
File 23:CSA Technology Research Database 1963-2009/Aug
(c) 2009 CSA.

| Set | Items | Description |
|-----|---------|--|
| S1 | 4531 | (RELATIVE()RISK OR RR OR RISK()RATIO)(6N)(VALUE? OR FACTOR? OR RANK? OR RATING OR RATE? ? OR RATIO OR SCORE? ? OR GRADE? ? OR VARIABLE?) |
| S2 | 91488 | (RISK OR PROBABILIT? OR CHANCE OR CHANCES OR LIKELY OR LIK- ELIKHOOD OR POSSIBILITY OR POTENTIAL OR PROBABLE)(6N)(VALUE? ? OR RATING OR SCORE? ? OR GRADE) |
| S3 | 4280883 | CLAIMS OR CLAIM OR INSURANCE() (DATA OR INFORMATION OR RECO- RDS OR FILINGS) |
| S4 | 476384 | S3(8N)(ANALY? OR EVALUAT? OR DETERMIN? OR COMPUT? OR CALCU- LAT? OR ASSIGN? OR INTELLIG? OR PROGRAM OR SOFTWARE OR PREDIC- T? OR ESTIMAT? OR STATISTIC? OR SCORING OR GRADING OR RATING - OR RANK? OR MODEL? OR DATA()MINING OR HARVEST?) |
| S5 | 3662 | S4(10N)(RISK? OR PROBABILIT? OR ODDS OR CHANCE OR CHANCES - OR LIKELY OR LIKELIHOOD OR POSSIBILITY OR POTENTIAL? OR PROBA- BLE OR INCURRING() (LOSS OR DAMAGE) OR EXPOSURE OR EPIDEMIOLOG? OR EXPOSED) |
| S6 | 0 | INTERVENABILITY()FACTOR? |
| S7 | 2328385 | MEDICAL OR HEALTH OR ILLNESS OR SICK OR CANCER OR FLU OR D- ISEASE? OR EPISODE? OR EPISODIC? |
| S8 | 457053 | (LIST? OR OUTPUT? OR DISPLAY? OR PRINT? OR ORDER? OR FILTE- |

R?)(8N)(MEMBER? ? OR GROUP? ? OR INDIVIDUAL? ? OR CUSTOMER? ?
OR INSURED OR CLIENT? ? OR PATIENT? ?)

S9 173 S1 AND S2
S10 9 S4 AND S9
S11 1 S1 AND S4 AND S7 AND S8
S12 9 S10 OR S11
S13 85 S9 AND (S7 OR S8)
S14 25 S3 AND S13
S15 31 S12 OR S14
S16 31 S15 FROM 350,344,347,371
S17 4 S16 NOT AY>2000
? t17/3,k/all

17/3,K/1 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2009 Thomson Reuters. All rts. reserv.

0010724185
WPI ACC NO: 2001-335682/200135
XRAM Acc No: C2001-103676
Treatment of vascular ~~disease~~ associated with cystatin C deficiency,
including atherosclerosis, aneurismal aortic lesions, myocardial infarction
and unstable angina pectoris, comprises administration of a cysteine
protease inhibitor
Patent Assignee: BRIGHAM & WOMENS HOSPITAL INC (BGHM)
Inventor: CHAPMAN H A; LIBBY P; SHI G; SHI G P; SIMON D I; SUKHOVA G K
Patent Family (2 patents, 21 countries)
Patent Application

| Number | Kind | Date | Number | Kind | Date | Update |
|---------------|------|----------|----------------|------|----------|----------|
| WO 2001030370 | A1 | 20010503 | WO 2000US29761 | A | 20001027 | 200135 B |
| US 6773704 | B1 | 20040810 | US 1999162313 | P | 19991028 | 200453 E |
| | | | US 2000697613 | A | 20001026 | |

Priority Applications (no., kind, date): US 1999162313 P 19991028; US
2000697613 A 20001026

Patent Details

| Number | Kind | Lan | Pg | Dwg | Filing Notes |
|--|------|-----|----|-----|--------------------------------------|
| WO 2001030370 | A1 | EN | 38 | 3 | |
| National Designated States,Original: CA JP | | | | | |
| Regional Designated States,Original: AT BE CH CY DE DK ES FI FR GB GR IE | | | | | |
| IT LU MC NL PT SE | | | | | |
| US 6773704 | B1 | EN | | | Related to Provisional US 1999162313 |

Treatment of vascular ~~disease~~ associated with cystatin C deficiency,
including atherosclerosis, aneurismal aortic lesions, myocardial infarction
and unstable angina pectoris, comprises administration of a cysteine
protease inhibitor

Original Titles:

Methods of treating vascular ~~disease~~ associated with cystatin C
deficiency...

...METHODS OF TREATING VASCULAR ~~DISEASE~~ ASSOCIATED WITH CYSTATIN C
DEFICIENCY...

Alerting Abstract ...NOVELTY - A method of treating vascular disease comprises administration of a cysteine protease inhibitor. DESCRIPTION - INDEPENDENT CLAIMS are also included for...

...a method for preventing development of a vascular disease comprising administration of a cysteine protease inhibitor; a method for treating vascular disease comprising administration of transforming growth factor beta; a method for preventing development of a vascular disease comprising administration of transforming growth factor beta; a method of identifying a subject suffering from or at risk of vascular injury comprising determining if the serum concentration of cystatin C is below a control value; a method of identifying a subject suffering from or at risk of developing a vascular injury comprising determining if the ratio of serum cystatin C to creatinine is less than a control value; and a method of identifying a subject suffering from or at risk of developing a vascular injury comprising determining if the rate of cystatin C clearance is less than a control rate...

...USE - The methods are useful for treating and preventing development of vascular diseases, including atherosclerosis, aneurismal aortic lesions, myocardial infarction, unstable angina pectoris, abdominal aortic aneurysm and tumor-induced vascular lesions...

Title Terms.../Index Terms/Additional Words: DISEASE;

Original Publication Data by Authority

Argentina

Assignee name & address:

Original Abstracts:

The invention provides methods of treating and preventing vascular diseases, by inhibiting cysteine proteases active at sites of vascular injury, particularly cathepsins K and S, by administering cystatin C or TGF-beta1. Cystatin C is severely reduced in both...

...The invention provides methods of treating and preventing vascular diseases, by inhibiting cysteine proteases active at sites of vascular injury, particularly cathepsins K and S, by administering cystatin C or TGF-beta1. Cystatin C is severely reduced in both atherosclerotic and aneurismal aortic lesions. Also provided is...

Claims:

We claim: 1. A method of treating atherosclerosis in a subject, comprising identifying a subject suffering from atherosclerosis and administering to said subject a composition comprising cystatin C in an effective...

17/3,K/2 (Item 2 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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0009924446
WPI ACC NO: 2000-224790/200019
XRAM Acc No: C2000-068828

XRPX Acc No: N2000-168359

Detecting cardiovascular ~~disease~~ comprises assaying a patients sample
for holo-transcobolamin II

Patent Assignee: AXIS BIOCHEMICALS AS (AXIS-N); AXIS-SHIELD ASA (AXIS-N);
COCKBAIN J (COCK-I)

Inventor: SUNDREHAGEN E

Patent Family (5 patents, 87 countries)

| Patent | | | Application | | | |
|---------------|------|----------|---------------|------|----------|----------|
| Number | Kind | Date | Number | Kind | Date | Update |
| WO 2000011479 | A1 | 20000302 | WO 1999GB2752 | A | 19990819 | 200019 B |
| AU 199954364 | A | 20000314 | AU 199954364 | A | 19990819 | 200031 E |
| EP 1105739 | A1 | 20010613 | EP 1999940374 | A | 19990819 | 200134 E |
| | | | WO 1999GB2752 | A | 19990819 | |
| US 6417006 | B1 | 20020709 | WO 1999GB2752 | A | 19990819 | 200253 E |
| | | | US 2000708851 | A | 20001005 | |
| JP 2002523749 | W | 20020730 | WO 1999GB2752 | A | 19990819 | 200264 E |
| | | | JP 2000566683 | A | 19990819 | |

Priority Applications (no., kind, date): GB 199818237 A 19980820; GB
19991583 A 19990125

Patent Details

| Number | Kind | Lan | Pg | Dwg | Filing Notes |
|--|------|-----|----|-----|--|
| WO 2000011479 | A1 | EN | 16 | 0 | |
| National Designated States,Original: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZA ZW | | | | | |
| Regional Designated States,Original: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ UG ZW | | | | | |
| AU 199954364 | A | EN | | | Based on OPI patent WO 2000011479 |
| EP 1105739 | A1 | EN | | | PCT Application WO 1999GB2752 |
| | | | | | Based on OPI patent WO 2000011479 |
| Regional Designated States,Original: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI | | | | | |
| US 6417006 | B1 | EN | | | Continuation of application WO 1999GB2752 |
| JP 2002523749 | W | JA | 16 | | PCT Application WO 1999GB2752 |
| | | | | | Based on OPI patent WO 2000011479 |

Detecting cardiovascular ~~disease~~ comprises assaying a patients sample
for holo-transcobolamin II

Original Titles:

...ASSAY METHOD FOR CARDIOVASCULAR ~~DISEASE~~

...

...Assay method for cardiovascular ~~disease~~.

...

...ASSAY METHOD FOR CARDIOVASCULAR ~~DISEASE~~

Alerting Abstract ...NOVELTY - An assay method for the detection of
cardiovascular ~~disease~~, potential cardiovascular ~~disease~~ (CVD),
or propensity to cardiovascular ~~disease~~ in a human or non-human
animal subject, comprises assessing the concentration of
holo-transcobolamin II (holo TCII) in a cobalamin containing sample from
said...

DESCRIPTION - An INDEPENDENT CLAIM is also included for an assay kit for use in a method according to any one of the preceding claims, comprising reagents and instructions for the performance of the assay method and for the interpretation of the results...

...USE - The new method of detecting holo-transcobalamin II is used to diagnose cardiovascular disease or predisposition to it (claimed).

Extension Abstract

...cases with out or normal values/total cases of the disorder divided with the same ratio for the control group. A value greater than one (1) indicates that a risk may exist. The odds ratio for homocysteine are in accordance with numerous other studies showing that homocysteine values higher than about 15 µM are associated with a greater risk for cardiovascular disease.

Title Terms.../Index Terms/Additional Words: DISEASE;

Original Publication Data by Authority

Argentina

Assignee name & address:

Original Abstracts:

The present invention relates to an assay method for detecting potential cardiovascular disease (CVD) in a vascularised subject, e.g. a human or non-human animal. The assay method comprises the assessment of the concentration of holo-transcobalamin II (holo-TCII) in...

...An assay method for detecting potential cardiovascular disease (CVD) in a vascularized subject by assessing the concentration of holo-transcobalamin II (holo-TCII) in a sample from the subject where abnormally low levels of holo-TCII are indicative...

...The present invention relates to an assay method for detecting potential cardiovascular disease (CVD) in a vascularised subject, e.g. a human or non-human animal. The assay method comprises the assessment of the concentration of holo-transcobalamin II (holo-TCII) in a sample from said subject...

Claims:

An assay method for the detection of cardiovascular disease (CVD), potential cardiovascular disease (potential CVD), or propensity to cardiovascular disease (propensity for CVD) in a human or non-human animal subject, said method comprising assessing the concentration of holo-transcobalamin II (holo-TCII) in a cobalamin containing...

17/3,K/3 (Item 3 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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0009699056
WPI ACC NO: 1999-356366/199930
Related WPI Acc No: 1997-077288
XRAM Acc No: C1999-105360
XRPX Acc No: N1999-265204

Diagnosing malignant ~~cancer~~ cells

Patent Assignee: MOUNT SINAI MEDICAL CENT (MOUN)

Inventor: BURSTEIN D E; HABER R S

Patent Family (1 patents, 1 countries)

| Patent | | | Application | | | |
|------------|------|----------|---------------|------|----------|----------|
| Number | Kind | Date | Number | Kind | Date | Update |
| US 5897991 | A | 19990427 | US 1995473434 | A | 19950607 | 199930 B |
| | | | WO 1996US9503 | A | 19960607 | |
| | | | US 1997984954 | A | 19971204 | |

Priority Applications (no., kind, date): US 1995473434 A 19950607; WO 1996US9503 A 19960607; US 1997984954 A 19971204

Patent Details

| Number | Kind | Lan | Pg | Dwg | Filing Notes |
|------------|------|-----|----|-----|------------------------------------|
| US 5897991 | A | EN | 8 | 0 | C-I-P of application US 1995473434 |
| | | | | | C-I-P of application WO 1996US9503 |
| | | | | | C-I-P of patent US 5698410 |

Diagnosing malignant ~~cancer~~ cells

Alerting Abstract DESCRIPTION - INDEPENDENT CLAIMS are included for
...

...USE - The method (I) - (III) may be used to detect the presence of malignant ~~cancer~~ (e.g. colon, ovary, lung, biliary tract and endometrium cancers) cells either in body cavity effusions or in tissue samples (e.g. to differentiate between ~~benign~~ hyperplastic lymph nodes and nodes involved in low grade follicular lymphomas) by quantitating the levels of GLUT-1 expression. They may also be used to give a prognosis of the ~~disease~~ by comparing the results obtained from the patient with those obtained from samples known to be benign or healthy.

...ADVANTAGE - (I) - (III) provide reliable and highly sensitive diagnostic tests for malignancy in ~~cancer~~ cells. This will allow earlier therapeutic intervention and increase the likelihood of better clinical outcomes. Also, immunocytochemical methods are cost effective and routinely carried out in many laboratories so (I) - (III) have the potential for widespread application.

Extension Abstract

...1 (a transmembrane glucose transporter protein which is over-expressed in malignant cells) immunostaining was used to obtain a prognosis for an individual with colon ~~cancer~~. Formalin fixed archival colon ~~cancer~~ specimens were obtained from 112 colon ~~cancer~~ patients for whom long-term clinical outcome with a mean follow-up of 7 years was known. The specimens were immunostained using standard avidin-biotin...

...percentage of cells which stained positive for GLUT-1 (the samples were graded as either < or > 50% staining). In univariate analysis, the mortality for colon ~~cancer~~ was greater in patients with > 50% staining (relative risk 2.4; p value 0.03).

Title Terms.../Index Terms/Additional Words: ~~CANCER~~;

Original Publication Data by Authority

Argentina

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DIALOG(R)File 350:Derwent WPIX
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Identifying resistance to fusiform rust ~~disease~~ in trees of the genus
Pinus

Patent Assignee: UNIV NORTH CAROLINA STATE (UYN-C-N)

Inventor: AMERSON H V; GRATTAPAGLIA D; KUHLMAN E G; O'MALLEY D M; SEDEROFF
R R; WILCOX P

Patent Family (1 patents, 1 countries)

| Patent | | | Application | | | |
|------------|------|----------|---------------|------|----------|----------|
| Number | Kind | Date | Number | Kind | Date | Update |
| US 5908978 | A | 19990601 | US 1994184567 | A | 19940121 | 199929 B |
| | | | US 1995545253 | A | 19951018 | |

Priority Applications (no., kind, date): US 1994184567 A 19940121; US
1995545253 A 19951018

Patent Details

| Number | Kind | Lan | Pg | Dwg | Filing Notes |
|------------|------|-----|----|-----|------------------------------------|
| US 5908978 | A | EN | 69 | 16 | C-I-P of application US 1994184567 |

Identifying resistance to fusiform rust ~~disease~~ in trees of the genus
Pinus

Original Titles:

Methods for within family selection of ~~disease~~ resistance in woody
perennials using genetic markers.

Alerting Abstract ...NOVELTY - A method of identifying a genetic marker
associated with a genetic locus conferring resistance to fusiform rust
~~disease~~ in a family of trees of the genus Pinus, is new.DESCRPTION -
Identifying a genetic marker associated with a genetic locus conferring
resistance to fusiform rust ~~disease~~ in a family of trees of the genus
Pinus, comprises...

...obtaining a sexually mature Pinus parent tree exhibiting resistance to
fusiform rust ~~disease~~; obtaining a plurality of progeny trees
of the parent by self or cross-pollinations; assessing multiple progeny
trees for a number of genetic markers; identifying genetic markers
segregating in a Mendelian ratio and showing linkage with other genetic
markers; measuring resistance to fusiform rust ~~disease~~ in multiple
progeny trees; and correlating the presence of resistance to ~~fusi~~form
rust ~~disease~~ with at least one marker identified in (d).

INDEPENDENT CLAIMS are also included for:

...

...containing a marker identified in (f); and vegetatively propagating the progeny tree selected in (i) to produce clonal trees exhibiting resistance to fusiform rust. clonal ~~disease~~ resistant trees produced by the method of (1); and a method of assessing non-~~disease~~ costs or benefits associated with a marker-identified resistance locus for fusiform rust ~~disease~~ comprising: identifying a heterozygous family of Pinus trees with a marker identified resistance locus; selecting a stand of the family with no fusiform rust ~~disease~~ present; genotyping each individual tree to determine the presence/absence of the marker; assessing growth parameters for each tree; and comparing the growth parameters in trees with the marker to those without the marker, where a significant difference in growth parameters indicates a non-~~disease~~ cost or benefit is associated with the marker.

USE - The method is useful for determining the genetic basis of resistance to fusiform rust ~~disease~~ and for producing trees of the Pinus genus that are resistant to the ~~disease~~.

ADVANTAGE - The method uses genetic markers and is therefore not time consuming compared to phenotypic selection (prior art) which requires trees

Extension Abstract

...a method of determining whether a quantitative trait (e.g. wood volume, ~~disease~~ resistance), is a heritable oligogenic trait in a woody perennial plant; a method of selecting individual woody perennial plants from within a family; a method of breeding...

...EXAMPLE - The genetic basis for resistance to the causal agent of fusiform rust ~~disease~~, Cronartium quercuum f. sp.fusiforme (Cqf), in loblolly pine (Pinus taeda) was studied using random amplified polymorphic DNA (RAPD) genetic markers and under the hypothesis that resistance to Cqf is under oligogenic control. A putative heterozygous (Rr) mother tree...

...to a highly susceptible pollen parent (rr). Progeny from the resulting sib families were challenged with inoculum from known single aeciospore lines of Cqf and ~~scored~~ for several greenhouse resistance symptoms. As a susceptible pollen parent was used, only the maternal contribution to the progeny was examined by constructing RAPD maps using... analyzed for cosegregation, those pairs of loci that cosegregated were assigned to linkage groups. Results indicated that the qualitative trait of resistance to fusiform rust ~~disease~~ in loblolly pine is under oligogenic control which can be mapped using genetic markers, using only a two-generation pedigree. Log of the Odds (LOD) ~~scores~~ were used to evaluate the probability of linkage between two markers or between a marker and a trait in genetic mapping. LOD ~~scores~~ of 1.0, 2.0 or 3.0 indicated that linkage is 10, 100 or 1000 times more probable than free recombination. Markers OPK17-980 and OPC6-1800 were found to have LOD associations of 1.92 with resistance. Resistance associations exceeding LOD 1.92...

Title Terms.../Index Terms/Additional Words: DISEASE;

Original Publication Data by Authority

Argentina

Assignee name & address:

Original Abstracts:

...of selecting, propagating and breeding plants are also provided. Methods of identifying genetic markers associated, in a family of trees, with a genetic locus conferring disease resistance to a pathogen are presented.

Claims:

Claim 6. A method of producing a plurality of clonal trees of the genus Pinus that are resistant to fusiform rust disease, comprising: a) obtaining a sexually mature Pinus parent tree exhibiting resistance to fusiform rust disease; b) obtaining a plurality of progeny trees of said parent tree by performing self or cross-pollinations; c) assessing multiple progeny trees for each of a plurality of genetic markers; d...

...segregating in an essentially Mendelian ratio and showing linkage with at least some other of said plurality of markers; e) measuring resistance to fusiform rust disease in said multiple progeny trees; f) correlating the presence of resistance to fusiform rust disease in said progeny trees with at least one marker identified in step (d) as segregating in an essentially Mendelian ratio and showing linkage with at least some of said other markers; g) selecting a progeny tree containing a marker identified in step (f) as associated with a genetic locus conferring resistance to fusiform rust disease; and h) vegetatively propagating said progeny tree selected in step (g) to produce a plurality of clonal trees, essentially all of said clonal trees exhibiting resistance to fusiform rust disease. **Claim 7.**

A stand of clonal disease resistant trees produced by the method of claim 6, the genome of each of said trees containing the same genetic marker associated with said disease resistance.

V. Additional Resources Searched

All Dialog Databases Searched – DialIndex – including Health & Insurance Files.